November 1976 Number 387-Part II

Solar-Geophysical Data comprehensive reports

Data for May 1976–April 1976 & Miscellanea

Explanation of Data Reports Issued as Number 378 (Supplement) February 1976

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Solar - Geophysical Data

NO. 387 NOVEMBER 1976

Part II (Comprehensive Reports)

DATA FOR
MAY 1976
APRIL 1976
& MISCELLANEA

NATIONAL GEOPHYSICAL AND SOLAR - TERRESTRIAL DATA CENTER
BOULDER, COLORADO

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NO. 387

Issued in two parts

Hope I. Leighton, Editor

J. Virginia Lincoln, Director
Solar - Terrestrial Data Services Division

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F.1e	Cosmic Ray Neutron Counts (Alert)	374A106	375A 96	377B 34	377A103	378A104	379A103	380A107	381A118	382A101	383A104	384A 96	385A101	386A 99	387A103	
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F.1g	Cosmic Ray Neutron Counts (Sulphur Mountain)	374A108	375A 96	376A106	377A103	378A104	380B 28	381B 44	381A118	382A101	383A104	384A 96	385A101	386A 99	387A103	
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Note: A = Part I, B = Part II.

374A 28 listed under 1975 Aug shows that data for August 1975 were contained in *Solar-Geophysical Data* Number 374 - Part I beginning on page 28.

MAY 1976 DATA

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ACTIVE REGIONS

CARRINGTON ROTATION 1641

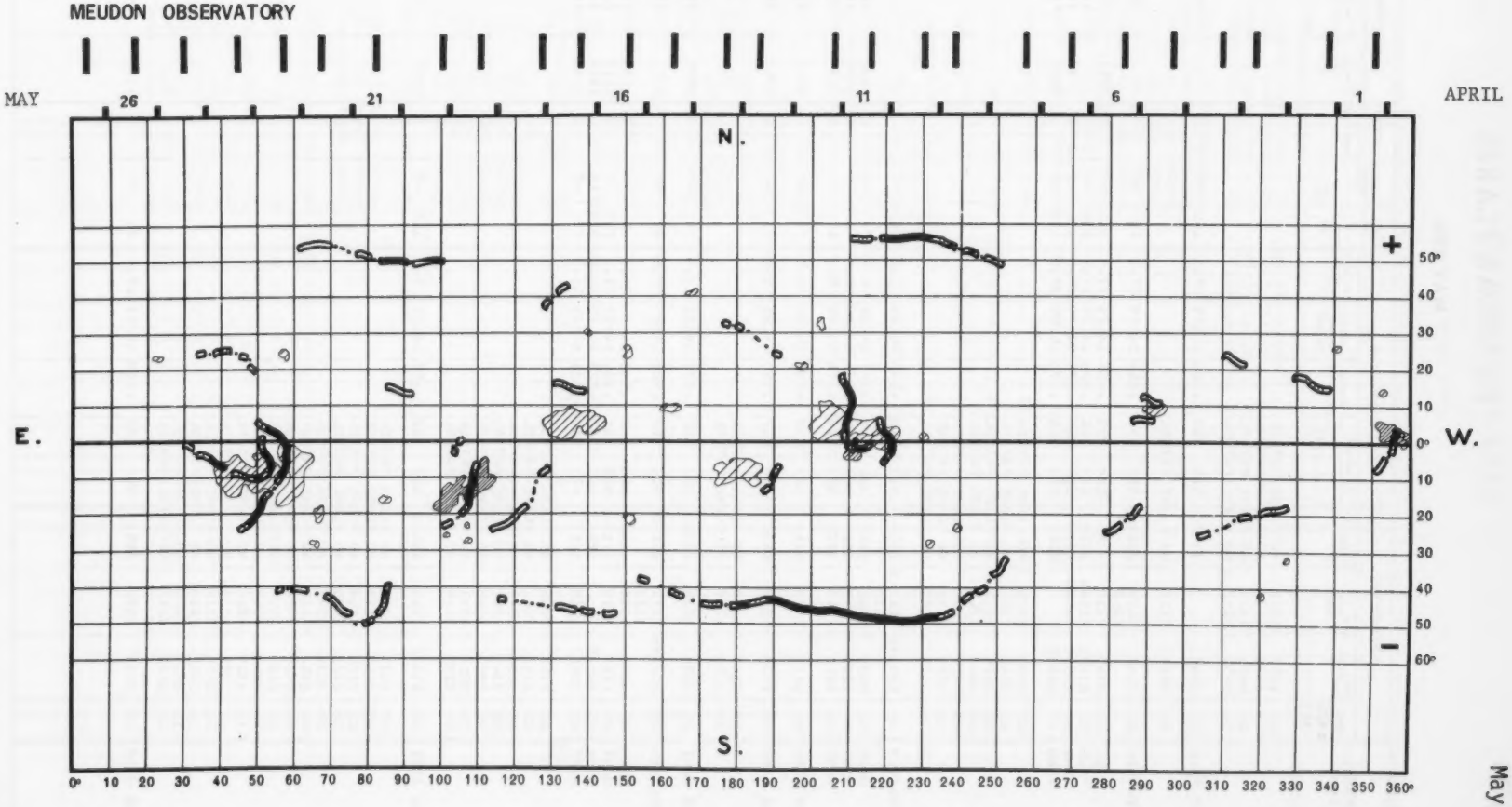
(April 30-May 27, 1976)

Region No.	Coordinates Lat.	Long.	Age at CMP	Imp.	Spot-less Region	Region No. in Rotation 1640	Activity at West Limb
1	3°N	356°	+6	2			decreasing, no spot at limb
2	9 N	293	+4	1	x		dispersed
3	1 N	217	>6	3			decreasing
4	3 S	211	-4	2			stable
5	5 N	210	>6	1	x	(5)	dispersed
6	7 S	181	>6	1	x		decreasing
7	10 N	162	+1	1	x		disappeared
8	6 N	137	>6	1	x	(10)	dispersed
9	12 S	108	>6	1	x		decreasing
10	20 S	67	+3	1	x		disappeared
11	24 N	57	-4	1	x		decreasing
12	9 S	49	>6	2		(17-18)	dispersed

SYNOPTIC SOLAR MAP

CARRINGTON ROTATION 1641

(APRIL 30 TO MAY 27, 1976)



5 May 76

Hα SOLAR FLARES

MAY 1976

OBSERV-ATORY	OBSERVED UT				LOCATION					DURA-TION	IMPOR-TANCE	OBS.		MEASUREMENTS			REMARKS
	DATE 1976 MAY	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	McMATH PLAGE REGION	CMP. DAY	MIN.		COND.	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.	
	01	1855	1910	NO FLARE PATROL													
	01	1922	1925	NO FLARE PATROL													
	01	1930	1939	NO FLARE PATROL													
	01	1953	2017	NO FLARE PATROL													
407 PALE	01	2042		2057D	S09	W60	.864	14179	27.4	15D	-F	3	C		54		
	01	2044	2111	NO FLARE PATROL													
GRP63408	01	2140	2154 2210	2238	S08	W60	.864	14179	27.4	58	-F				90	1.8	JU
CULG	01	2140	2210	2241	S08	W59	.855	14179	27.5	61	-F		C	2200	40	.8	
PALE	01	2142E	2154U	2235	S09	W60	.864	14179	27.4	53D	-F	3	C		90		U
MANI	01	2155E	2155U	2210	S08	W61	.872	14179	27.3	15D	-N	2	V	2155	90	1.7	FU
VORO	01	2156E		2248	S08	W61	.872	14179	27.3	52D	1N		C	2156	170	3.4	EJ
	02	2000	2029	NO FLARE PATROL													
	02	2045	2057	NO FLARE PATROL													
	02	2104	2115	NO FLARE PATROL													
	03	0645	0708	NO FLARE PATROL													
	03	0724	0730	NO FLARE PATROL													
	03	0735	0746	NO FLARE PATROL													
	04	0128	0140	NO FLARE PATROL													
GRP63409	04	0935>9	1001+1 1018	1039	N08	E18	.367	14195	5.7	64	-F				20	.2	EG
HTPR	04	0935	1002	1045	N08	E18	.367	14195	5.7	70	-F		C	1002	20	.2	E
MONT	04	1000	1001	1004	N09	E18	.376	14195	5.8	4	-F		C	1001	20		G
MONT	04	1016	1018	1032	N09	E18	.376	14195	5.8	16	-F		C	1018	20		G
410 HTPR	04	1119	1128	1140	N08	E18	.367	14195	5.8	21	-F		C	1128	20	.2	E
411 HTPR	04	1309	1313	1400	N08	E17	.354	14195	5.8	51	-F		C	1313	20	.2	E
	05	0145	0150	NO FLARE PATROL													
	05	0159	0205	NO FLARE PATROL													
412 MONT	05	1034	1035	1038	N01	E87	.999	14203	12.0	4	-F		C	1035	20		
GRP63413	05	1053+4	1110 1210	1215D	N03	W65	.909	14185	30.6	82	-F				25	.6	DGH
HTPR	05	1053	1055	1140	N03	W65	.909	14185	30.6	47	-F		C	1055	10	.2	
MONT	05	1057	1110	1215D	N03	W62	.886	14185	30.8	78D	-F		C	1110	20		DG
MCMA	05	1113E		1245	N03	W67	.923	14185	30.4	92D	-N		C	1114	30	.9	DH
HTPR	05	1150	1210	1215	N03	W66	.916	14185	30.5	25	-F		C	1210	20	.4	E
	05	2141	2144	NO FLARE PATROL													
	05	2207	2241	NO FLARE PATROL													
	05	2337	2342	NO FLARE PATROL													
	05	2346	2352	NO FLARE PATROL													
	06	0003	0009	NO FLARE PATROL													
	06	0017	0022	NO FLARE PATROL													
	06	0052	0104	NO FLARE PATROL													
414 ABST	07	0532E	0540	0542D	N12	W22	.452	14195	5.6	10D	-F		P	0540	87	1.0	DG
	07	1830	1832	NO FLARE PATROL													
	07	2113	2133	NO FLARE PATROL													
	07	2138	2153	NO FLARE PATROL													
	08	2021	2030	NO FLARE PATROL													
	08	2036	2040	NO FLARE PATROL													
	08	2053	2110	NO FLARE PATROL													
	09	0901	0920	NO FLARE PATROL													
	09	2035	2156	NO FLARE PATROL													
	09	2211	2343	NO FLARE PATROL													
	10	0219	0220	NO FLARE PATROL													
	10	1900	1928	NO FLARE PATROL													
	10	2059	2217	NO FLARE PATROL													
	11	1826	2118	NO FLARE PATROL													
	12	1515	1520	NO FLARE PATROL													
	12	2203	2217	NO FLARE PATROL													
415 HTPR	13	0930	0931	0951	N01	E53	.800	14206	17.4	21	-F		C	0931	20	.3	

Hα SOLAR FLARES

MAY 1976

OBSERV-ATORY	OBSERVED UT				LOCATION					DURA-TION	IMPOR-TANCE	OBS.		MEASUREMENTS			REMARKS
	DATE 1976 MAY	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	McMATH PLAGE REGION	CMP. DAY	MIN.		COND.	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.	
GRP63416	13	1401+1	1403+3	1408	S11	E75	.965	14211	19.2	7	-F				20		DG
ATHN	13	1401	1403	1408	S10	E73	.955	14211	19.1	7	-F	3	C		19		DE
HTPR	13	1402	1405	1408	S11	E75	.965	14211	19.2	6	-F		C	1405	20	.4	
MONT	13	1402	1406	1410	S11	E78	.977	14211	19.4	8	-F		C	1406	20		DG
	13	1800	1815	NO FLARE PATROL													
	13	1820	1849	NO FLARE PATROL													
	13	2016	2048	NO FLARE PATROL													
	13	2053	2100	NO FLARE PATROL													
	14	1130	1137	NO FLARE PATROL													
	14	1202	1206	NO FLARE PATROL													
	14	1806	1819	NO FLARE PATROL													
	14	1836	1911	NO FLARE PATROL													
417 MANI	15	0314	0315	0322D	S03	W45	.706	14203	11.8	8D	-F	3	P	0315	30	.4	
418 ABST	15	0500E	0500	0528	S04	W46	.719	14203	11.8	28D	-F		P	0500	131	1.8	E
419 HTPR	15	0715	0720	0735	S03	W48	.742	14203	11.7	20	-F		C	0720	20	.3	E
420 HTPR	15	0820	0827	0832	S03	W48	.742	14203	11.7	12	-F		C	0827	20	.3	E
GRP63421	15	1002+1	1026+4 1040+0	1108	S14	E59	.860	14211	19.8	66	1F						EG
ZURI	15	1002	1030	1222	S12	E54	.812	14211	19.5	140	1N		C	1030	150	2.7	
KHAR	15	1003	1026	1115D	S15	E62	.885	14211	20.1	72D	1F		C	1026	165		EG
HTPR	15	1003	1004	1005	S12	E58	.850	14211	19.8	2	-F		C	1004	30	.5	E
RAMY	15	1037E	1040U	1100D	S14	E60	.868	14211	19.9	23D	-F	4	V		96		DE
RAMY	15	1037E	1040U	1106	S15	E60	.869	14211	19.9	31D	-F	4	C		72		FDE
422 HTPR	15	1235	1245	1257	S03	W50	.765	14203	11.8	22	-F		C	1245	20	.3	E
423 ZURI	15	1348	1352	1352	S12	E53	.802	14211	19.6	4	-F		C	1352	60	1.1	
	15	1957	2010	NO FLARE PATROL													
	15	2017	2025	NO FLARE PATROL													
	15	2036	2126	NO FLARE PATROL													
	15	2158	2214	NO FLARE PATROL													
424 CULG	16	0602	0608	0614D	S03	W62	.882	14203	11.6	12D	-N		P	0608	50	1.1	
	16	1013	1031	NO FLARE PATROL													
GRP63425	16	1444+0	1446 1501	1519	S03	W65	.906	14203	11.7	35	-F						
RAMY	16	1444E	1446U	1520D	S03	W65	.906	14203	11.7	36D	-F	4	V		48		FDE
RAMY	16	1444	1501	1517	S04	W65	.906	14203	11.7	33	-F	4	C		54		FDE
	16	1700	1731	NO FLARE PATROL													
	16	1738	1802	NO FLARE PATROL													
	16	1858	1909	NO FLARE PATROL													
	16	1914	1944	NO FLARE PATROL													
	16	2058	2144	NO FLARE PATROL													
	16	2155	2205	NO FLARE PATROL													
426 CULG	17	0225E	0225	0245	S05	W71	.945	14203	11.8	20D	-F		P	0225	15	.5	
	17	1817	1832	NO FLARE PATROL													
	17	1836	1845	NO FLARE PATROL													
	17	1906	2045	NO FLARE PATROL													
427 MONT	18	0931	0933	0937	S11	E19	.354	14211	19.8	6	-F		C	0933	20		H
428 HTPR	18	1236	1239	1245	S06	E70	.939	14215	23.8	9	-F		C	1239	10	.2	
GRP63429	18	1351+6	1359+2	1405	S06	E66	.913	14215	23.5	14	1N				110		F
ATHN	18	1348E	1351U	1407	S06	E67	.920	14215	23.6	19D	-F	3	C		4		F
LVOV	18	1351	1359	1407	S04	E70	.939	14215	23.8	16	1F		C	1359	75		E
RAMY	18	1354	1400	1406	S04	E66	.913	14215	23.5	12	-F	4	C		149		F
CATA	18	1355	1400	1405	S07	E66	.913	14215	23.5	10	1B	2		1400	140		
HTPR	18	1356	1359	1402	S06	E64	.898	14215	23.4	6	-N		C	1359	80	1.2	
ZURI	18	1357	1401	1403	S07	E66	.913	14215	23.5	6	-N		C	1401	90		

Hα SOLAR FLARES

MAY 1976

OBSERV-ATORY	OBSERVED UT				LOCATION					DURA-TION	IMPOR-TANCE	OBS.		MEASUREMENTS			REMARKS
	DATE 1976 MAY	START	MAX. PHASE	END	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	McMATH PLAGE REGION	CMP. DAY	MIN.		CONC	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.	
GRP63430	18	1620+5	1625+2 1635	1702	S08	E68	.926	14215	23.8	42	-F						
HTPR	18	1620	1625	1702	S08	E65	.906	14215	23.6	42	-F		C	1625	10	.2	
HTPR	18	1620	1635	1702	S08	E65	.906	14215	23.6	42	-F		C				
ATHN	18	1623	1627	1638	S08	E68	.926	14215	23.8	15	-F	2	C		48		F
RAMY	18	1625	1644	1716	S08	E70	.939	14215	23.9	51	-F	3	C		123		DE
	18	1738	1739	NO FLARE PATROL													
	18	1914	2011	NO FLARE PATROL													
	18	2030	2036	NO FLARE PATROL													
431 MCMA	18	2041E		2048D	S06	E64	.898	14215	23.7	7D	-N		P	2045	30	.7	E
	18	2048	2050	NO FLARE PATROL													
432 VORO	18	2150	2152	2156	S04	E64	.898	14215	23.7	6	-B		C	2152	63	1.5	D
GRP63433	19	1337+3	1340+2	1352	N08	W31	.538	14206	17.2	15	-F				50	.6	F
ATHN	19	1337	1340	1346	N07	W31	.534	14206	17.2	9	-F	3	C		48		F
CATA	19	1340	1340	1355	N08	W31	.538	14206	17.2	15	-N	2		1340	56	.7	
ZURI	19	1340	1342	1352	N08	W30	.524	14206	17.3	12	-F		C	1342	50	.7	
	20	1635	1651	NO FLARE PATROL													
	20	2127	2142	NO FLARE PATROL													
GRP63434	21	1215>9	1243+4 1253+2	1404	S13	W26	.469	14211	19.6	109	-N				110	1.2	EG
HTPR	21	1215	1245	1420	S14	W24	.447	14211	19.7	125	-B		C	1245	80	.8	E
MCMA	21	1220	1247	1510	S14	W25	.461	14211	19.6	170	-F		C	1247	100	1.2	E
RAMY	21	1225	1243	1324	S12	W28	.492	14211	19.4	59	-F	4	C		135		FDE
HTPR	21	1225	1243	1340	S12	W29	.506	14211	19.3	75	-B		C	1243	80	.9	E
LVOV	21	1226	1253	1423	S13	W24	.441	14211	19.7	117	1N		C	1253	300	3.5	EG
RAMY	21	1253E	1255U	1330D	S12	W28	.492	14211	19.4	37D	-F	4	V		159		FDE
GRP63435	21	1252+0	1255+3	1315	S20	E12	.366	14217	22.4	23	-F				40	.4	
HTPR	21	1252	1255	1315	S20	E12	.366	14217	22.4	23	-F		C	1255	20	.2	
RAMY	21	1252	1255	1307	S20	E13	.375	14217	22.5	15	-F	4	C		36		DE
RAMY	21	1255E	1258U	1315D	S21	E11	.372	14217	22.4	20D	-F	4	V		47		DE
436 MCMA	21	2134		2138D	S10	E40	.650	14215	24.9	4D	-F		C	2135	40	.6	E
	21	2155	2213	NO FLARE PATROL													
	21	2341	0125	NO FLARE PATROL													
437 AdST	22	0455E	0455	0504	S07	E30	.505	14215	24.5	9D	-F		P	0455	79	.9	BD
GRP63438	22	0906	0910	0922	S10	E20	.366	14215	23.9	16	-F						
MONT	22	0906	0910	0913D	S11	E22	.401	14215	24.0	7D	-F		C	0910	40		
HTPR	22	0909E		0922	S09	E19	.345	14215	23.8	13D	-F		C	0912	10	.1	
GRP63439	22	1444	1453	1500	S08	E13	.247	14215	23.6	16	-F						
HTPR	22	1444	1453	1500	S08	E13	.247	14215	23.6	16	-F		C	1453	20	.2	
CATA	22	1455E	1455	1455D	S09	E14	.270	14215	23.7		-N	1		1455	56	.6	
440 HTPR	22	1718	1719	1725	S08	E12	.232	14215	23.6	7	-F		C	1719	10	.1	
	22	1912	1923	NO FLARE PATROL													
	22	1935	1954	NO FLARE PATROL													
	22	2327	0208	NO FLARE PATROL													
GRP63441	23	1137+8	1145+1	1210	S09	E05	.153	14215	23.9	33	-F				90	.9	L
RAMY	23	1137	1146	1208	S08	E05	.139	14215	23.9	31	-F	4	C		114		FDE
MCMA	23	1138	1145	1210	S09	E05	.153	14215	23.9	32	-F		C	1145	60	.6	EL
RAMY	23	1142E	1146	1204D	S09	E06	.163	14215	23.9	22D	-F	4	V		96		FDE
CATA	23	1145	1215	1255D	S09	E05	.153	14215	23.9	70D	1N	2		1215	196	2.0	
	23	2016	2036	NO FLARE PATROL													
	23	2102	2135	NO FLARE PATROL													
	24	1820	1837	NO FLARE PATROL													
	24	1920	1926	NO FLARE PATROL													
	24	1953	2007	NO FLARE PATROL													
	24	2049	2122	NO FLARE PATROL													
	24	2214	2239	NO FLARE PATROL													
	24	2257	2340	NO FLARE PATROL													
	25	0038	0045	NO FLARE PATROL													
	25	0104	0108	NO FLARE PATROL													
	25	0136	0138	NO FLARE PATROL													

Hα SOLAR FLARES

MAY 1976

OBSERV-ATORY	OBSERVED UT				LOCATION					DURA-TION	IMPOR-TANCE	OBS.		MEASUREMENTS			REMARKS
	DATE 1976 MAY	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	McMATH PLAGE REGION	CMP. DAY	MIN.		COND.	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.	
	25	0200	0240	NO FLARE PATROL													
	25	1650	1746	NO FLARE PATROL													
	25	2015	2045	NO FLARE PATROL													
	26	0049	0056	NO FLARE PATROL													
442 ABST	26	0457E	0457	0532	S06	W24	.413	14215	24.4	35D	-F		P	0457	79	.9	BD
443 UPIC	26	0906E		0950U	S11	W90	1.000	14211	19.6	44D	-N		P	0906			A
	26	1658	1707	NO FLARE PATROL													
	26	1739	1755	NO FLARE PATROL													
	26	1859	2004	NO FLARE PATROL													
	26	2011	2045	NO FLARE PATROL													
	27	0114	0135	NO FLARE PATROL													
	27	0145	0151	NO FLARE PATROL													
	27	1355	1407	NO FLARE PATROL													
	27	1408	1420	NO FLARE PATROL													
	27	1912	1921	NO FLARE PATROL													
444 MONT	28	1401	1403	1407	N06	E77	.975	14237	3.4	6	-F		C		20		G
	28	1741	1753	NO FLARE PATROL													
	28	1839	2104	NO FLARE PATROL													
	28	2224	2235	NO FLARE PATROL													
	29	1904	1905	NO FLARE PATROL													
	29	1920	1929	NO FLARE PATROL													
	29	1955	2004	NO FLARE PATROL													
	29	2101	2133	NO FLARE PATROL													
	29	2137	2140	NO FLARE PATROL													
	29	2237	2244	NO FLARE PATROL													
	29	2248	2310	NO FLARE PATROL													
	30	2016	2023	NO FLARE PATROL													
	30	2131	2148	NO FLARE PATROL													
	30	2153	2200	NO FLARE PATROL													
	31	1813	2139	NO FLARE PATROL													

"Remarks":

A = Eruptive prominence whose base is less than 90° from central meridian.
B = Probably the end of a more important flare.
C = Invisible 10 minutes before.
D = Brilliant point.
E = Two or more brilliant points.
F = Several eruptive centers.
G = No visible spots in the neighborhood.
H = Flare accompanied by a high speed dark filament.
I = Active region very extended.
J = Distinct variations of plage intensity before or after the flare.
K = Several intensity maxima.
L = Existing filaments show signs of sudden activity.
M = White-light flare.
N = Continuous spectrum shows effects of polarization.
O = Observations have been made in the calcium II lines H and K.
P = Flare shows helium D_3 in emission.
Q = Flare shows the Balmer continuum in emission.
R = Marked asymmetry in Hα line suggests ejection of high velocity material.
S = Brightness follows disappearance of filament (same position).
T = Region active all day.
U = Two bright branches, parallel (||) or converging (Y).
V = Occurrence of an explosive phase: important and abrupt expansion in about a minute with or without important intensity increase.
W = Great increase in area after time of maximum intensity.
X = Unusually wide Hα line.
Y = System of loop-type prominences.
Z = Major sunspot umbra covered by flare.

DAILY FLARE INDICES
Includes all Flares

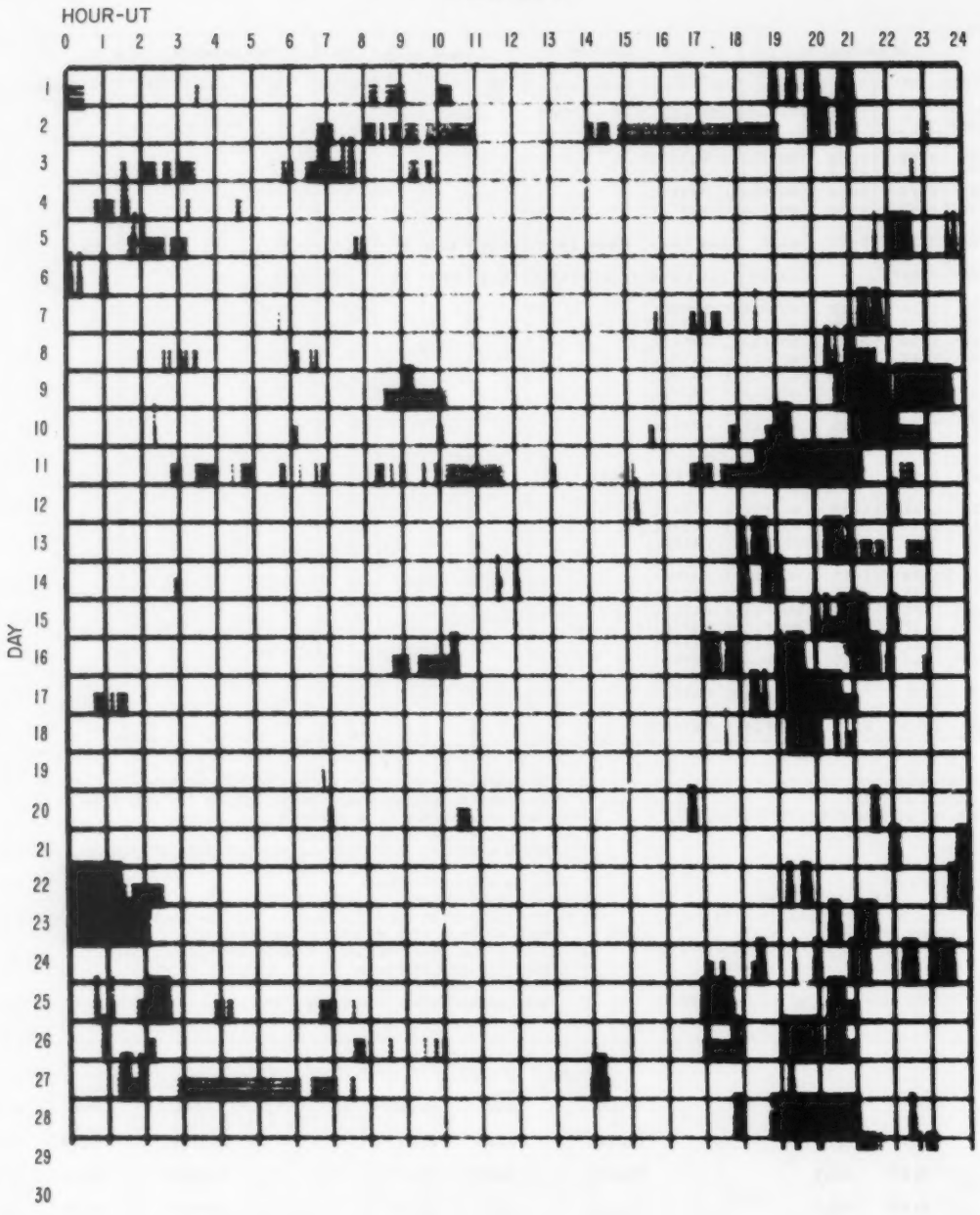
Date	Flare Index	HR. OBS.	Date	Flare Index	HR. OBS.	Date	Flare Index	HR. OBS.
760501	5.12	22.7	760511	0.00	21.1	760521	9.13	22.0
760502	0.00	23.1	760512	0.00	23.7	760522	21.41	20.8
760503	0.00	23.3	760513	2.14	22.6	760523	4.28	23.1
760504	10.77	23.8	760514	0.00	23.0	760524	0.00	21.7
760505	1.20	23.0	760515	14.78	22.6	760525	0.00	21.7
760506	0.00	23.6	760516	1.80	21.2	760526	6.25	21.8
760507	3.41	23.4	760517	.89	22.0	760527	0.00	23.0
760508	0.00	23.5	760518	15.50	22.9	760528	.95	21.1
760509	0.00	20.8	760519	1.32	24.0	760529	0.00	22.6
760510	0.00	22.2	760520	0.00	23.5	760530	0.00	23.5
						760531	0.00	20.6

When no Flare Index is given, it is 0 for that day.

INTERVALS OF NO FLARE PATROL OBSERVATION

FOR PRECEDING SOLAR FLARE TABLE

MAY 1976



Observatories included in total patrol:

Abastumani	Culgoora	Istanboul	Lvov	Monte Mario	Upice
Arcetri	Haute Provence	Kharkov	Manila	Palehua	Voroshilov
Athenes	Herstmonceux	Kiev	McMath-Hulbert	Ramey	Wendelstein
Bucharest	Huancayo	Kodaikanal	Meudon	Tachkent	Zürich
Catania	Hurbanovo	Lacarno	Mitaka	Tehran	

Times of no flare patrol are shown by the shaded area for each day divided into times of no cinematographic patrol (bottom half of day) and times of neither visual nor cinematographic patrol (top half of day).

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES
MAY 1976

MAY 1976	FREQUENCY	STATION	TYPE	STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} PEAK	FLUX DENSITY MEAN	INT	POLARIZATION OR REMARKS
1	606	MANI	41 F	0000.3	0004.1	40.9	13.7	3.8		
	200	HIRA	45 C	0005	0009.5	13	70	20		SR
	207	VORO	7 C	0005	0009	13	45			
	1000	TYKW	5 S	0012	0015.3	6	5.1	1.3		
	1420	BOUL	3 S	0013.5	0015	3.5	2	1		
	1000	TYKW	5 S	0034	0035.4	6	2.5	0.8		
	100	HIRA	45 C	0052	0053.2	2.5	20	10		MR
	200	HIRA	45 C	0150	0150.9	2	90	15		WR
	100	HIRA		0150	0150		180			WL
	100	HIRA	45 C	0150		2		50		
	100	HIRA		0151	0151		160			WL
	200	HIRA	45 C	0411.8	0412.2	1.2	90	40		WR
	100	HIRA	45 C	0411.8	0412	1.5	700	50		WL
	100	GORK	6 S	0412	0412.5U	1	50			
	100	GORK	43 NS	0500		300		5		
	260	ONDR	2 S/F	0652.3	0652.8	2.5	5	0.7		
	200	HIRA	45 C	0652.6	0653	1	30	10		O
	100	GORK	41 F	0653	0653.8	5.4	48			
	100	GORK		0658.3			45			
	3000	POTS	1	0718	0718.5	1.1				
	1470	POTS	3	0718.2	0718.6	0.9	7.6	2.2		
	550	KIEV	6 S	0900	0901.5	2.2	6			
	4995	BOUL	3 S	1734	1735.5	2	10	3		
	2800	OTTA	21 GRF	2135		200 D	4.4			
	4995	BOUL	2 SF	2138	2143	8.5	20	7		
	1420	BOUL	48 C	2139.5	2200.5	88.5	141	10		
	9400	TYKW	5 S	2139	2143.2	8	15	4		20R
	3750	TYKW	5 S	2139	2143.3	9	17	4		05L
	1415	SGMR	46 C	2140.2	2201.2	67.4	141.3	42.4		
	1415	SGMR	46 C		2223.2		63.6			
	2695	BOUL	40 F	2140.5	2144.5	25	15	2		
	2000	TYKW	45 C	2140	2144.1	7	46	5		
	2000	TYKW	42 SER	2140	2144.1	70	46	2.5		
	606	SGMR	46 C	2141.4	2212.5	62.6	50.8	15.3		
	606	SGMR	46 C		2230		38.4			
	2800	OTTA	4 S/F	2141	2143	5	12.8	4.3		
	410	SGMR	6 C	2142.3	2209.1	60	71	25.4		
	410	SGMR	6 C		2212.4		127.3			
	1000	TYKW	40 F	2142	2144	13	1.3	0.4		
	1000	TYKW	42 SER	2142	2229.7	65	51	4.7		
	245	SGMR	7 C	2147.3	2207.8	58.7	264.6	52.9		
	245	SGMR	7 C		2212.3		189.9			
	2000	TYKW	40 F	2147	2147.5	2	15	1.5		
	2000	TYKW	45 C	2149	2202	16	41	2.5		
	9400	TYKW	21 GRF	2150	2158	60	6	2		OR
	200	HIRA	45 C	2154		53		50		
	200	HIRA		2154	2229.5		110			WL
	200	HIRA		2154	2212.2		320			WR
	200	HIRA		2154	2207.8		480			WR
	500	HIRA	45 C	2155.5		42		8		
	500	HIRA		2155.5	2229.8		25			
	500	HIRA		2155.5	2212.6		30			
	2800	OTTA	45 C	2155.5	2203	10	2.8	1.6		
	3750	TYKW	45 C	2155	2159	10	5	3		OR
	1000	TYKW	40 F	2155	2158.5	10	8	2.5		
	100	HIRA	45 C	2158		71		40		
	100	HIRA		2158	2215.3		350			WL
	100	HIRA		2158	2229.8		270			WR
	100	HIRA		2158	2218		170			WL
	1415	MANI	40 F	2200.1	2201	32.2	181	76		
	207	VORO	28 PRE	2155	2158.7	6.5	11			
	207	VORO	4 S/F	2202	2203.5	3	29			
	207	VORO	49 GB	2205	2207.7	12	273			
	207	VORO	29 PBI	2217	2217.7	28	30			
	606	MANI	40 F	2205.5U	2212.5	29 U	38.5	17.5U		SUNRISE
	2000	TYKW	45 C	2205	2212.7	12	14	3.5		
	1000	TYKW	45 C	2205	2212.9	12	21	6		
	3750	TYKW	45 C	2206	2212.4	10	9	3		15R
	2695	BOUL	1 S	2207.5	2208	1.5	2	1		
	4995	BOUL	2 SF	2210	2211.5	6	12	4		
	2695	BOUL	3 S	2211.5	2213.5	5.5	9	3		
	2695	BOUL	30 PBI	2229.5	2230.5	9	15	5		
	2800	OTTA	2 S/F	2211	2212.3	5	8	3.4		
	9400	TYKW	5 S	2211	2212.3	4	7	3		10R
	3750	TYKW	5 S	2217	2220	10	2	1		OR
	1000	TYKW	45 C	2217	2223.6	11	45	8		
	2000	TYKW	45 C	2217	2219.7	11	5	1.8		
	207	VORO	4 S/F	2227.5	2230	4.5	66			
	4995	BOUL	2 SF	2227.5	2229	4	10	3		
	2800	OTTA	4 S/F	2228.5	2229.7	8	11.6	3		
	3750	TYKW	5 S	2228.5	2229.8	7	10	4		10R
	9400	TYKW	5 S	2228.5	2229.7	4	9	3		10R
	2000	TYKW	5 S	2228	2229.8	9	14	3.5		20L
	1000	TYKW	45 C	2228	2229.6	19	51	6		

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES
MAY 1976

MAY 1976	FREQUENCY	STATION	TYPE		STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} PEAK	FLUX DENSITY MEAN	INT	POLARIZATION OR REMARKS
	2000	TYKW	40	F	2237	2243	13	4	0.5		70L
	1000	TYKW	5	S	2252.5	2252.9	1	4.9	1.6		
2	200	GORK	4	SF	0412.1	0412.8	1.2	55	75		
	550	KIEV	41	F	0756.5	0758.7	8	11			
	550	KIEV	41	F	0825	0826.6	22	8			
	550	KIEV	41	F	0903.5	0909.3	7.5	11			
	550	KIEV	41	F	0942.7	0953.4	13	3			
	550	KIEV	6	S	1012.7	1013	1.5	4			
	550	KIEV	41	F	1038	1038.7	4	7			
	550	KIEV	4	S/F	1046	1046.5	1	1.2			
	550	KIEV	41	F	1119.2	1124.3	5.2	2			
	2800	OTTA	8	S	1829.5	1829.8	0.5	0.8	0.4		
3	3100	CRIM	24	R	0702	0825		2			
	550	KIEV	27	RF	0748	0756	12	0.6			
	550	KIEV	27	RF	0805	0811.5	10	1.4			
	9240	ARCE	8		0828.4	0828.5	0.6				
	260	ONDR	1	S	1103.2	1104.2	2.5	13	3.6		
	9240	ARCE	4		1508.4	1508.6	1.7				
	2800	OTTA	26	FAL	1635	1700	25	1.2	0.6		
4	550	KIEV	27	RF	0823.5	U	8	0.8			
	550	KIEV	6	S	1026.5	1030	4	23			
	550	KIEV	27	RF	1145	1148.7	7.5U	1.7			
	550	KIEV	46	C	1245.5	1249.2	5.2	10			
	550	KIEV	29	PBI	1251	1253.2	5.7	1.3			
	550	KIEV	27	RF	1303	1312.5	17.5	1.7			
	550	KIEV	6	S	1320.5	U	1.7	34			
	550	KIEV	27	RF	1323	1332.7	16.3	2			
	550	KIEV	48	C	1339	1346.7	19	56			
	550	KIEV	27	RF	1359.6	1407	15	2.4			
	550	KIEV	27	RF	1418.7	U	11.3	0.5			
	550	KIEV	48	C	1514	1515.3	2	160 D			
	550	KIEV	48	C	1523.7	U	5.6	148 D			
	9240	ARCE	2		1646.2	1646.3	1				
	18	MCMA	42		1928	1945	17			1	
5	200	GORK	43	NS	0641.3		138.7		5		
	3100	CRIM	24	R	1016	1102		2			
	245	SGMR	6	S	1353.8	1354.5	1.3	13.1	2.6		
	410	SGMR	6	S	1354.3	1354.5	.8	6.6	1.3		
	606	SGMR	1	S	1354.5	1354.8	.6	3.3	1		
	18	MCMA	6		1935	1937	2			1	
6	3100	CRIM	24	R	0904	0917		2			
	260	ONDR	8	S	1129.3	1129.3	0.2	26			
	9240	ARCE	1		1407.3	1407.4	0.5				
7	3100	CRIM	24	R	0929	1018		2			
8	18	MCMA	41		2204	2213	15			1	
9	550	KIEV	41	F	1026.2	1030.2	4.5	7			
	550	KIEV	41	F	1054.7	1101.2	7.7	4			
	550	KIEV	40	F	1110.7	1111.6	2.2	5			
	18	MCMA	6		1638	1640	2			1	
	4995	BOUL	8	S	2147.5	2149.5	4	183	60		
	2695	BOUL	3	S	2159	2201.5	5	4	1		
	4995	BOUL	1	S	2202.5	2203.5	2	8	3		
	4995	BOUL	1	S	2206	2207	2.5	8	3		
	4995	BOUL	2	SF	2253.5	2254	5	15	5		
10	3100	CRIM	24	R	0742	0904		2			
	260	ONDR	4	S/F	1157.5	1158.3	2	9	1.4		
	18	MCMA	6		1345	1347	2			1	
	930	BORD	41	F	1503.4	1503.5	0.3	12	2		
	18	MCMA	6		1817	1819	2			1	
	18	MCMA	41		2050	2053	15			1	
	18	MCMA	42		2125	2156	38			1	
	18	MCMA	41		2242	2247	5			2	
	500	HIRA	45	C	2307.1	2308	2	240	10		
11	720	SYDN	45	C	0044	0048.3	5.5				
	1420	SYDN	8	S	0048.3	0048.4	0.2				
	1420	SYDN	45	C	0056.7	0057.5	1				
	720	SYDN	45	C	0056.7	0057.5	1.5				
	720	SYDN	8	S	0100.2	0100.2	0.3				
	1420	SYDN	8	S	0100.2	0100.2	0.3				
	3100	CRIM	24	R	0717	0725		2			
	2695	BOUL	1	S	1616.5	1618	2.5	3	1		
	18	MCMA	42		1734	1738	5			1	
12	3100	CRIM	24	R	0714	0830		3			
	260	ONDR	2	S/F	1246.2	1246.8	1.5	8			

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES
MAY 1976

MAY 1976	FREQUENCY	STATION	TYPE	STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} PEAK	FLUX DENSITY MEAN	INT	POLARIZATION OR REMARKS
	9240	ARCE	3	1309.1	1309.5	0.8				DISTURBED
	260	ONDR	8 S	1508.8	1508.8	0.2	10			
	245	SGMR	6 S	2054.4	2055	1.4	1.7	.5		
	18	MCMA	6	2055	2058	3			1	
	245	SGMR	6 S	2111	2111.4	1	29	8.7		
	4995	BOUL	45 C	2134.5	2142.5	12	12	4		
	2695	PENT	240 R	2240	2440	120	1.6	0.8		
	2695	PENT	24P R	2440		40 D	1.6			
13	113	POTS	45 C	1429.1	1429.1	0.1	200	50		
14	1000	TYKW	5 S	0139.5	0140.1	1.5	5.9	1.3		15L
	550	KIEV	40 F	1117.7	1118.7	6.2	11			
	2800	OTTA	1 S	2042	2043	8	0.6	0.4		
15	260	ONDR	43 NS	0623 E		277	20			
	3100	CRIM	24 R	1000	1009		4			
	2800	OTTA	22 GRF	1050		190	1.4	0.8		
	127	TORN	40 F	1250.5	1259.2	14.5	8.5	1.5		
16	3100	CRIM	3 S	0600	0607.5	29	14	5		
	606	MANI	4 S/F	0602.2	0604	9.2	18.9	6.2		
	1415	MANI	3 S	0602.4	0604	5.6	18	1.2		
	4995	MANI	3 S	0602.4	0606.6	6.2	23.2	9.7		
	2695	MANI	3 S	0602.4	0605.1	6.5	11	3.7		
	9400	TYKW	5 S	0602	0607	21	10	5		OR
	2000	TYKW	45 C	0602	0605.8	11	5.5	2.2		OL
	2000	TYKW	29 PBI	0613		30	1.2	0.5		
	3750	TYKW	45 C	0602	0607.2	11	20	8		OR
	3750	TYKW	29 PBI	0613		30	3	1		
	100	HIRA	45 C	0602 U	0603.8	6.5	130	15		O
	500	HIRA	45 C	0603	0605.5	5	15	6		
	1000	TYKW	45 C	0603.6	0605.2	3.5	6.6	2.7		OL
	2800	OTTA	20 GRF	1415	1450	150	2.4	1.3		
	18	MCMA	6	1955	1957	2			1	
	18	MCMA	6	2105	2106	2			1	
	100	HIRA	45 C	2216.8		4.5		12		
	100	HIRA		2216.8	2220		25			HL
	100	HIRA		2216.8	2218.6		15			SR
17	550	KIEV	41 F	1157	1159.5	3.2	9			
18	9650	IRKU	2 S	0705.6	0706.2	2	57	10		12L
	2800	OTTA	20 GRF	1620	1645	95	2.6	1.3		
	18	MCMA	42	1719	1723	8			1	
	18	MCMA	6	2105	2107	2			1	
19	550	KIEV	3 S	0802	0803.2	2.5	4			
	550	KIEV	31 ABS	0804.5	0829	30				
20	4995	BOUL	45 C	0105.5	0111	7.5	68	16		
	9650	IRKU		0737	0742	7	19	6		
	9650	IRKU	41 F	0737	0740.1		8			
	9650	IRKU		0737	0742.8		64			
	9240	ARCE	1	0939	0939.2	0.6				
	4995	BOUL	40 F	1406.5	1411	15	87	20		
	2695	BOUL	1 S	1415.5	1417.5	2.5	7	2		
	4995	BOUL	45 C	1429	1437	9	17	5		
	4995	BOUL	45 C	1543.5	1547	10	29	7		
	4995	BOUL	1 S	1816	1818	3.5	8	3		
21	550	KIEV	40 F	0948.7	0950.2	2	2.7			
	3100	CRIM	24 R	1020	1045		2			
	18	MCMA	41	1908	1918	40			1	
	4995	BOUL	3 S	2233	2239	10.5	12	4		
	2695	BOUL	3 S	2235.5	2241.5	10.5	6	2		
	4995	BOUL	3 S	2249	2252	5	8	3		
	2695	BOUL	3 S	2250	2253	6	7	2		
	2695	BOUL	45 C	2251.5	2301.5	12	6	2		
	2695	BOUL	1 S	2313.5	2315	2	4	1		
	2695	BOUL	45 C	2320	2321	4	3	1		
22	18	MCMA	42	0003	0009	7			1	
	550	KIEV	42 SER	1027	U	31.5	6			
	550	KIEV	3 S	1113	1114	2	5			
	550	KIEV	40 F	1144.2	1147	4	3			
	18	MCMA	6	1803	1805	2			1	
23	550	KIEV	6 S	1111.7	1112.6	1.2	6			
	550	KIEV	8 S	1113.5	1113.7	0.5	9			
24	18	MCMA	6	1414	1416	2			1	
	18	MCMA	6	2047	2048	1			1	
	18	MCMA	42	2221	2225	4			1	
26	930	BORD	46 C	1150.7	1150.7	0.3	26	2		

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

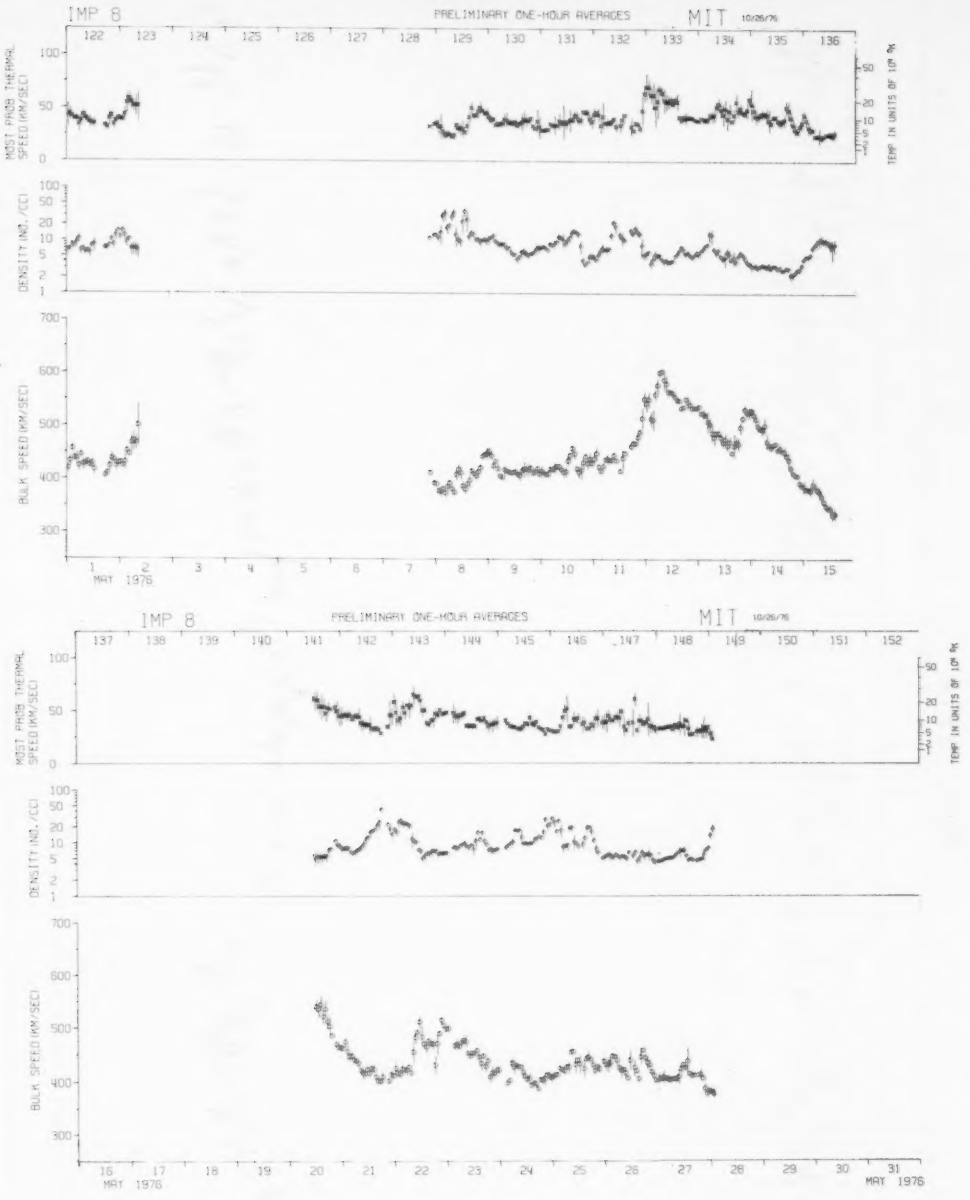
MAY 1976

MAY 1976	FREQUENCY	STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1}		INT	POLARIZATION OR REMARKS
				UT	UT	MINUTES	PEAK	MEAN		
	930	BORD	41 F	1214	1217.8	4.3	16	2		
27	4995	BOUL	3 S	1536.5	1538	4	20	7		
	2695	BOUL	1 S	1540	1540.5	2.5	3	1		
	4995	BOUL	1 S	1541.5	1543	2.5	10	3		
28	1420	BOUL	3 S	1436	1439	6.5	15	3		
	18	MCMA	6	1653	1655	2			1	
	18	MCMA	42	1729	1732	4			1	
29	3100	CRIM	20 GRF	0924	0935	85	2.5	1		
	550	KIEV	6 S	0951	0951.7	1.5	6			
	550	KIEV	27 RF	1254.5	U	3.5	3			
30	18	MCMA	6	1524	1527	3			1	
	4995	BOUL	1 S	1600	1601.5	2.5	12	4		
	4995	BOUL	20 GRF	1716.5	1718	11.5	8	3		
	4995	BOUL	4 SF	1755	1757	10.5	55	18		
31	9240	ARCE	4	0920.3	0920.6	1.5				
	9240	ARCE	20	1037	1104.2	81.5U				
	9240	ARCE	20	1222.3	1236	104				
	18	MCMA	6	1545	1547	2			1	

Reports received from the following observatories:

ABST = Abastumani
ARCE = Arcetri
BERL = Berlin-Adlershof
BORD = Bordeaux
BOUL = Boulder
CRIM = Simferopol
GORK = Gorky
HARS = Harestua
HIRA = Hiraiso
HUAN = Huancayo
IRKU = Irkutsk
KIEV = Kiev
MANI = Manila
MCMA = McMath-Hulbert
ONDR = Ondrejov
OTTA = Ottawa
PENT = Penticton
POTS = Potsdam
SAOP = Sao Paulo
SGMR = Sagamore Hill
SYDN = Sydney
TORN = Torun
TYKW = Toyokawa
TRST = Trieste
VORO = Voroshilov (Ussurisk)

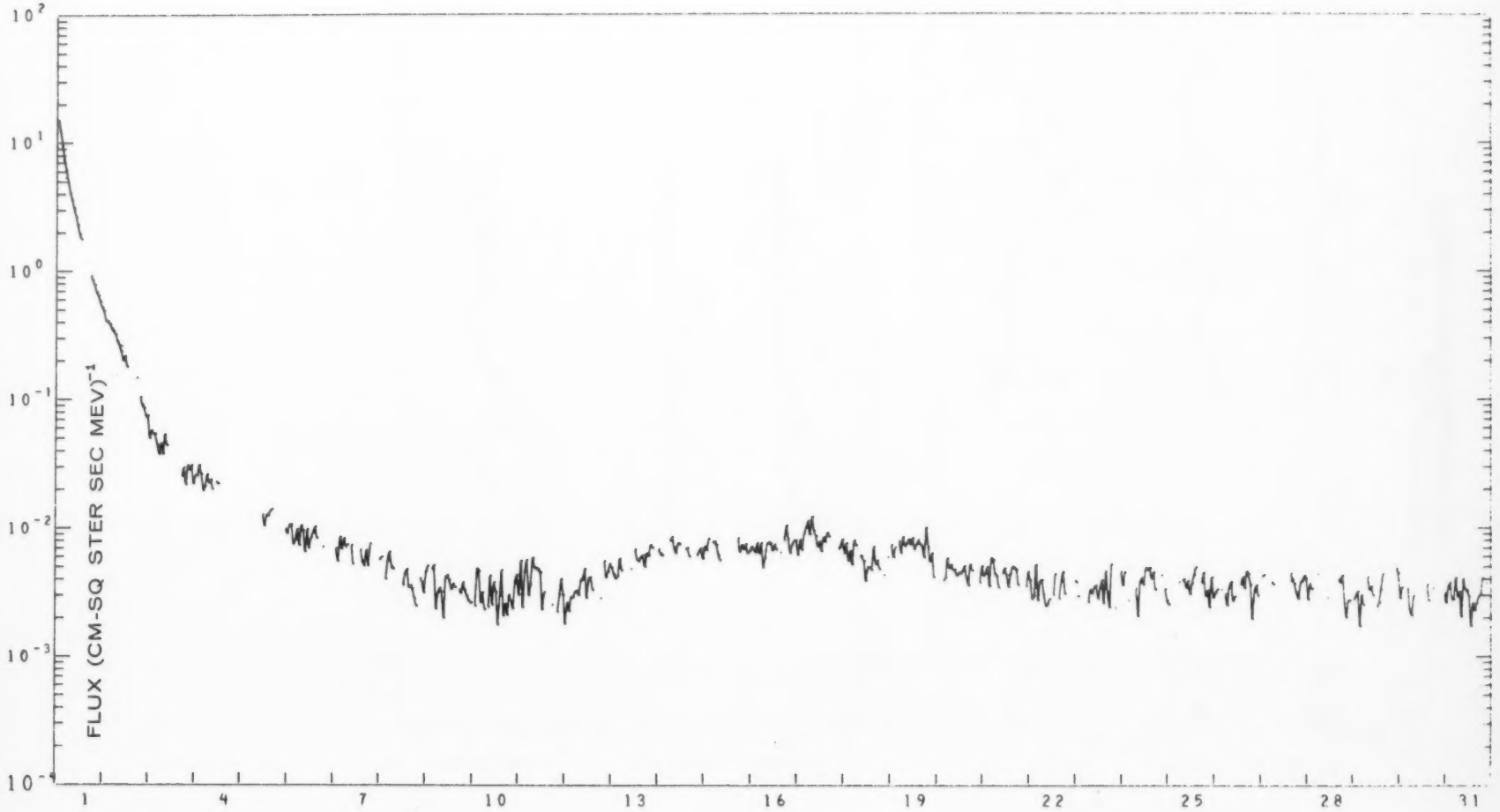
IMP 7 AND 8 SOLAR WIND PLASMA
MAY 1976



IMP 7 AND 8 ELECTRONS

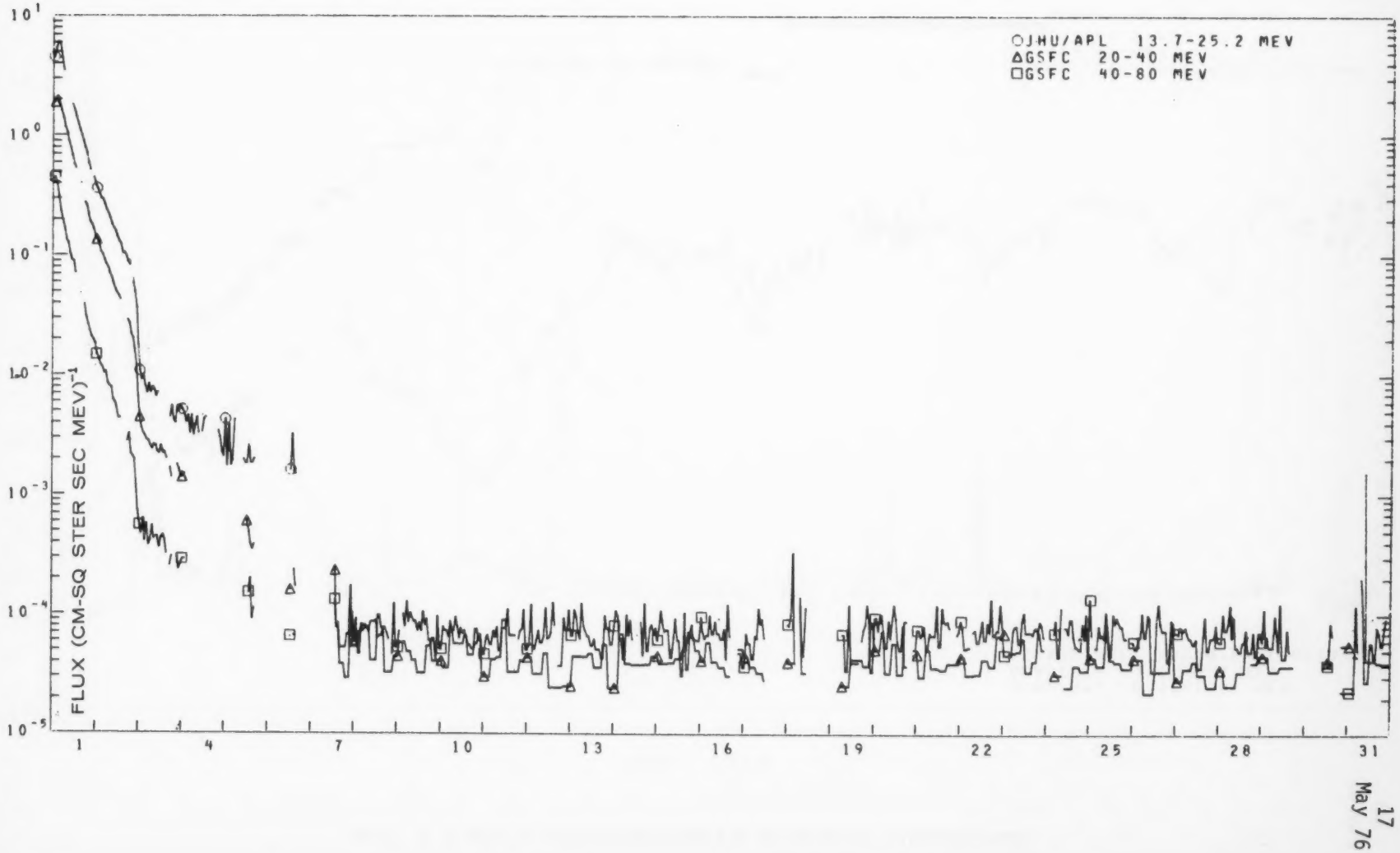
MAY, 1976

16 May 76



IMP 7 AND 8 LOW ENERGY PROTONS

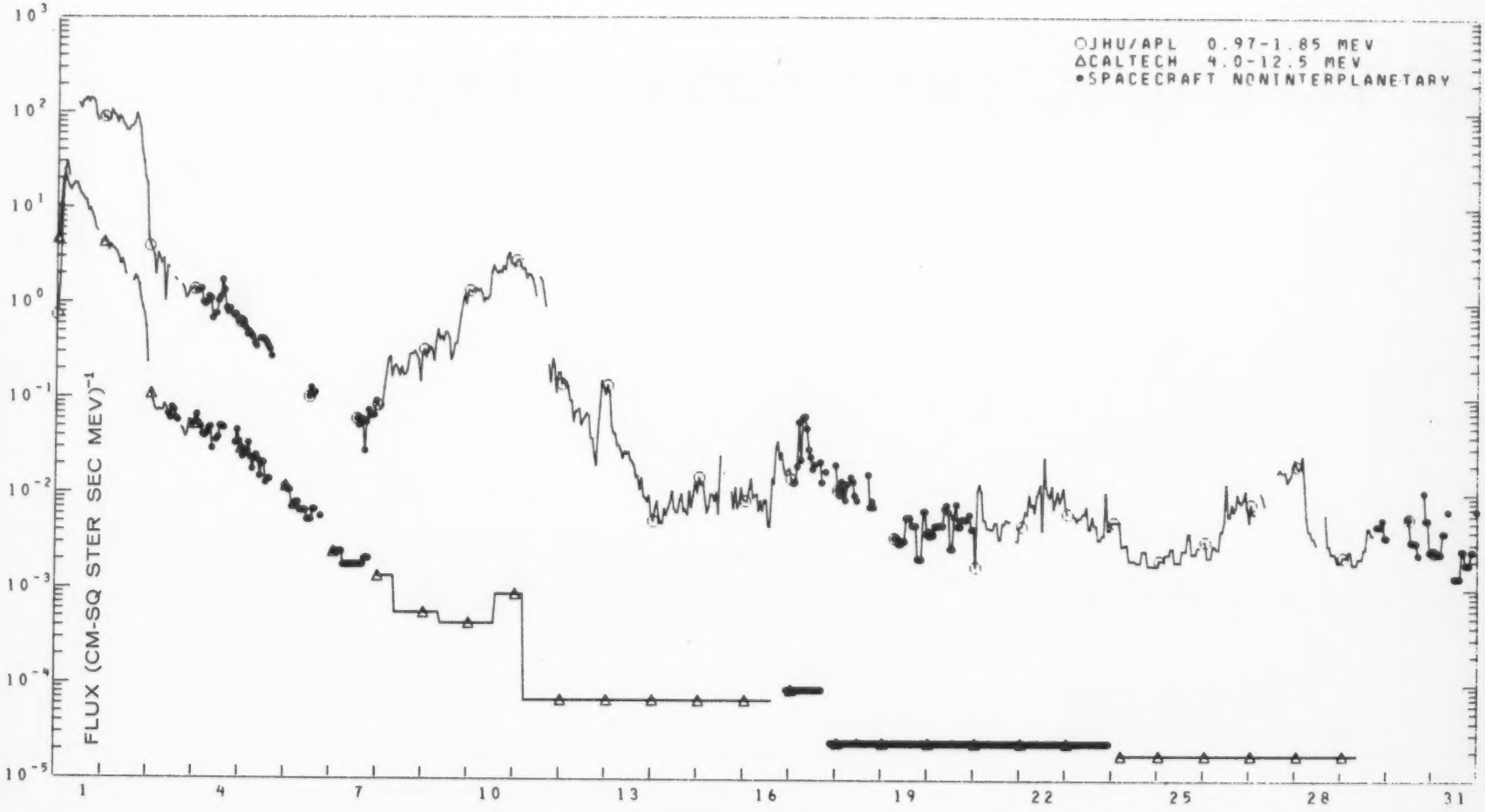
MAY, 1976



IMP 7 AND 8 INTERMEDIATE ENERGY PROTONS

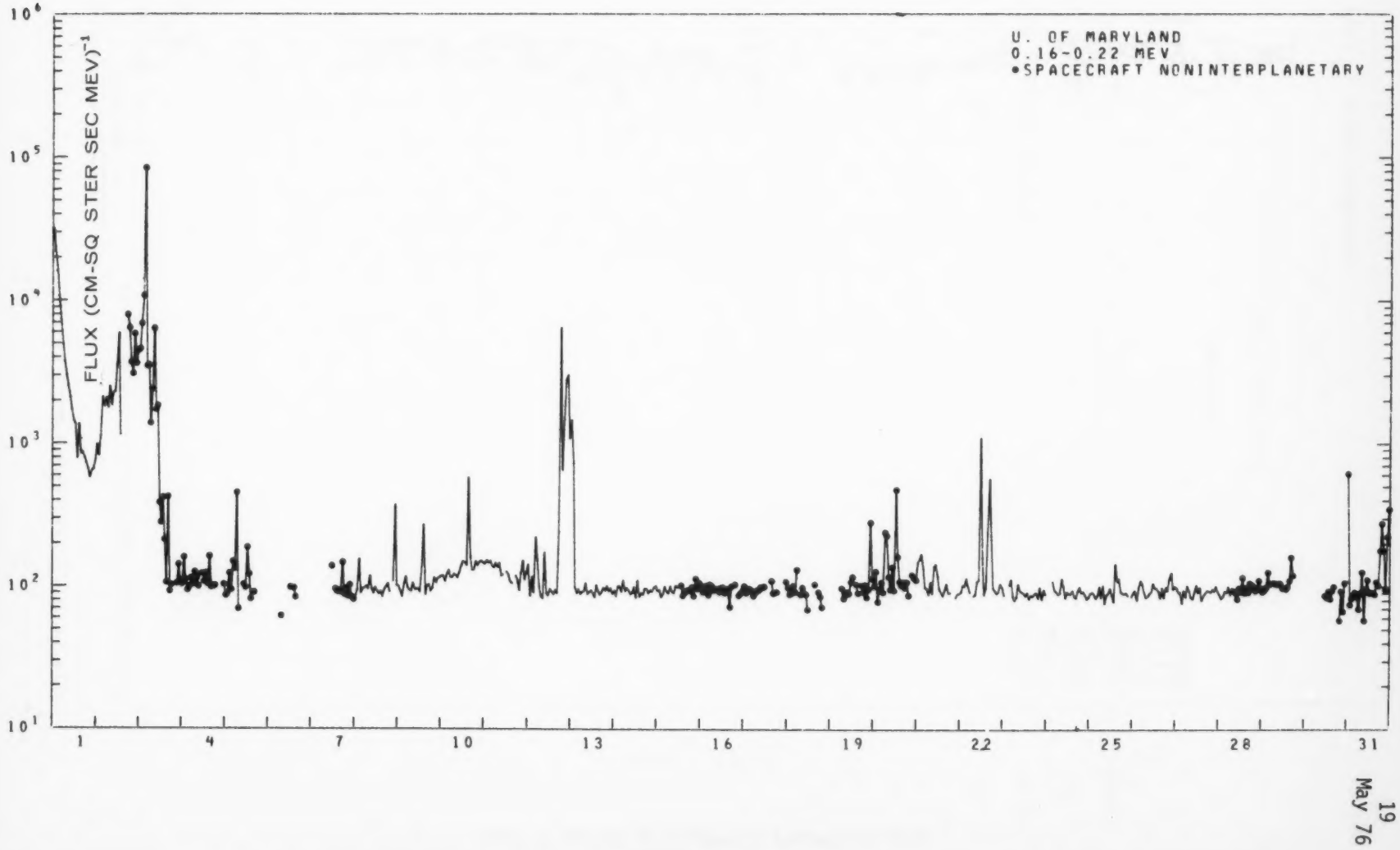
MAY, 1976

18 May 76



IMP 7 AND 8 HIGH ENERGY PROTONS

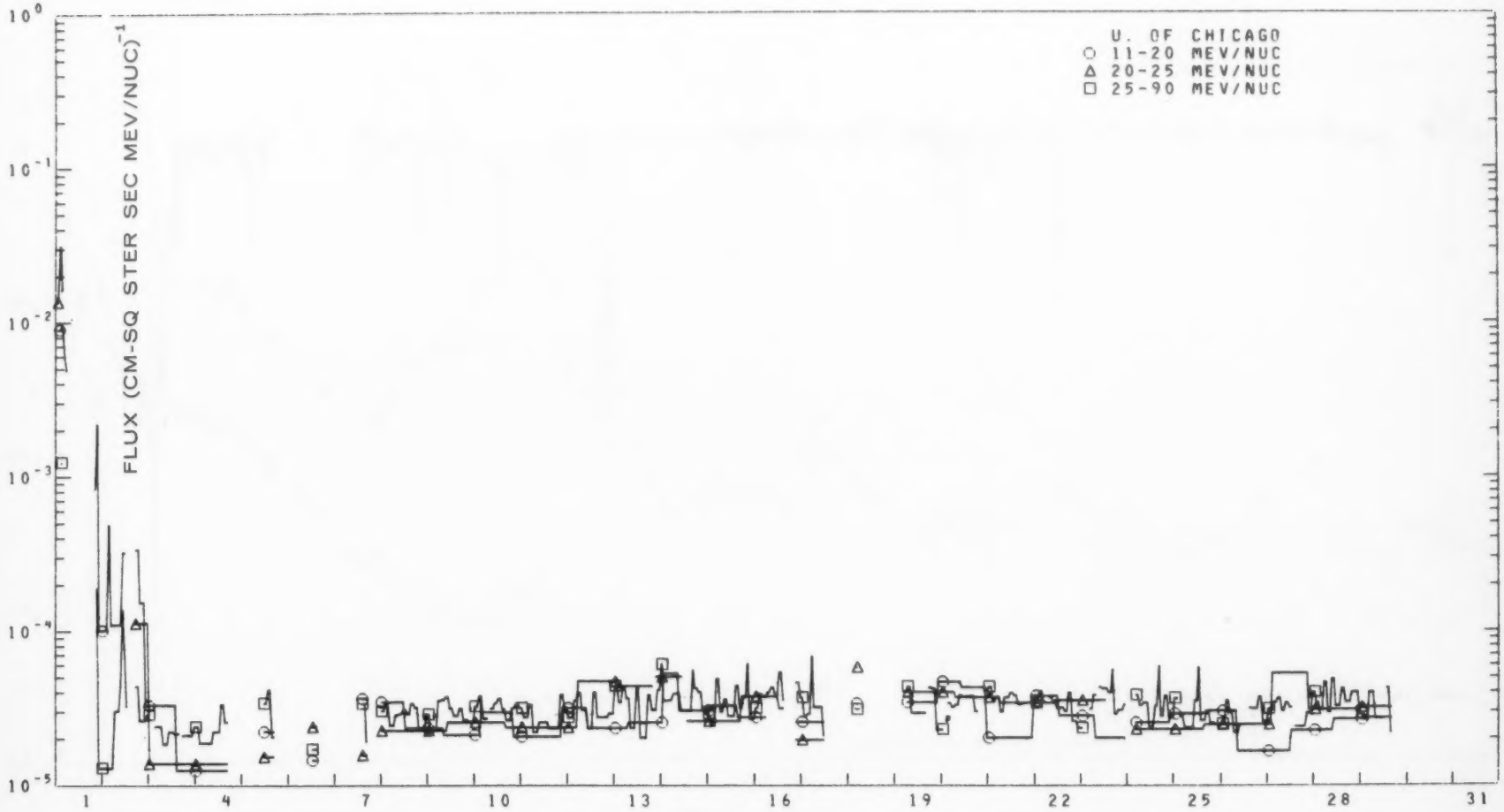
MAY, 1976



IMP 7 AND 8 ALPHA PARTICLES

MAY, 1976

20 May 76



APRIL 1976 DATA

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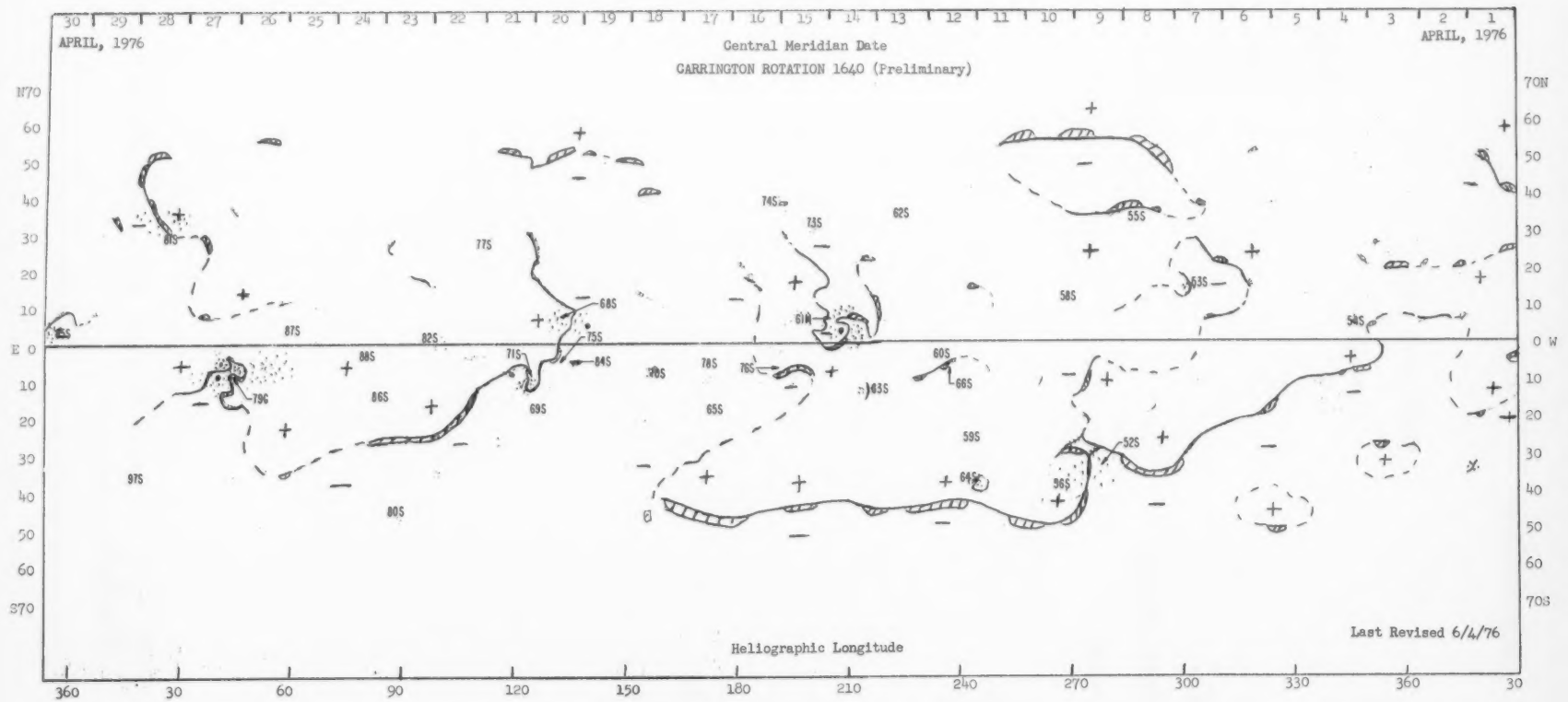
ABBREVIATED CALENDAR RECORD

Hα SYNOPTIC CHART

APRIL 1976



ABBREVIATED CALENDAR RECORD

Apr. 1, 1976

FLARES

Bursts: cm; dm; m — noise storm; Dkm

SID

X-Rays

Ap 107D — Kp: 6o 8+ 8o 8o 6- 4+ 3+ 3-

sc: ▲ 0255(20)

Aurora — USSR / W.E.: ϕ = 57° 0800-1400 (R_1R2); ϕ = 52° 1200-1600 (R_1R2); ϕ = 49° 1400-1900 (HB2); ϕ = 59° 1500-2000 (HA2)

Cosmic Rays: Decrease of 8%, which began on March 25, reached maximum decrease 0800 UT April 1, returned to normal April 7

Green Corona Indices: E. Limb 7 days earlier: NE- SE- W. Limb 7 days later: NW- no data SW- no data

Rz: 26 10cm flux: 80 Flare: 6/22.3 Ca: 6.7 Ip: 0 Ia: 5

Solar Regions

Sunspots

Apr. 2, 1976

FLARES

Bursts: cm; dm; m — ns; noise storm; Dkm

SID

X-Rays

Ap 16 — Kp: 4o 3+ 2+ 1- 1o 2+ 3o 5-

sc

Aurora — USSR / W.E.: ϕ = 58° 1200-1400 (HA2); ϕ = 57° 1300-1500 (HA1); ϕ = 54° 1700-1900 (SA2); ϕ = 58° 1900-2100 (R_2R2 and HA1) and 2200-2300 (SB2)

Cosmic Rays

Green Corona Indices: E. Limb 7 days earlier: NE- no data SE no data W. Limb 7 days later: NW- no data 270°-325° SW-no data 200°-270°

Rz: 25 10cm flux: 77 Flare: 26/20.2 Ca: 5.9 Ip: 0 Ia: 2

Solar Regions

Sunspots

Apr. 3, 1976

FLARES

Bursts: cm; dm; m — noise storm; Dkm

SID

X-Rays

Ap 44D — Kp: 4o 5+ 5+ 2o 4o 5- 5o 6+

sc

Aurora — USSR / W.E.: ϕ = 58° 0000 (HA1) and 1900-2100 (HB1); ϕ = 57° 1500-1700 (HR4) and 1800-1900 (HA1); ϕ = 56° 2200-2300 (R_2A3)

Cosmic Rays

Green Corona Indices: E. Limb 7 days earlier: NE- no data SE- no data W. Limb 7 days later: NW- no data SW- no data

Rz: 22 10cm flux: 76 Flare: 8/24.0 Ca: 4.7 Ip: 0 Ia: 6

Solar Regions

Sunspots

Apr. 4, 1976

FLARES

Bursts: cm; dm; m — ns; noise storm; Dkm

SID

X-Rays

Ap 30D — Kp: 5+ 4o 4+ 5- 4o 4+ 2+ 4-

sc

Aurora — USSR / W.E.: ϕ = 56° 0000-0200 (R_2A3) and 1600-1800 (R_1A2); ϕ = 59° 1500-1900 (HA2); ϕ = 58° 2100 (R_1A1)

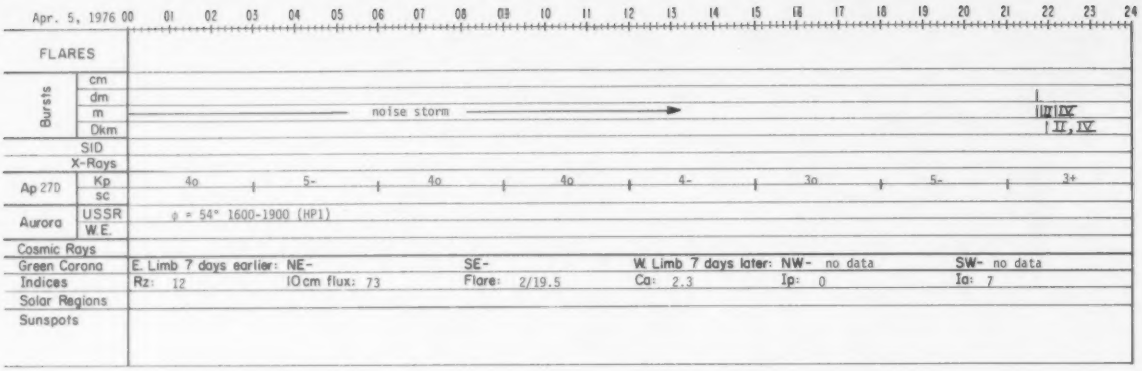
Cosmic Rays

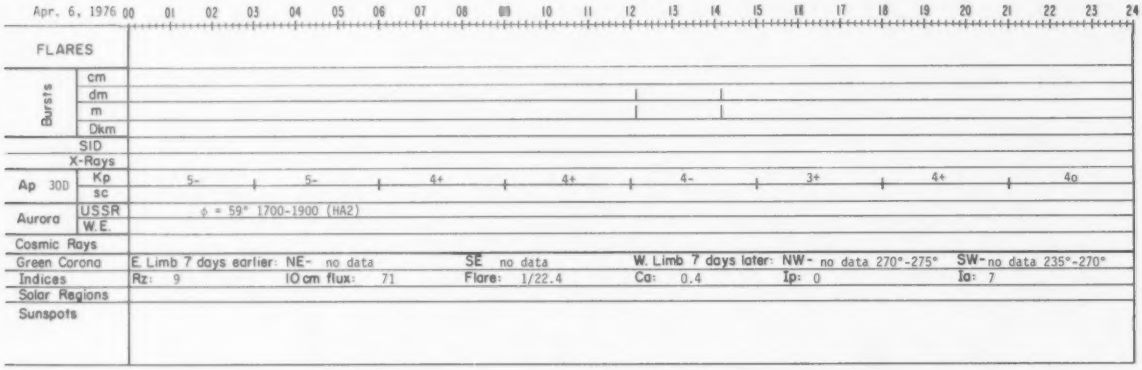
Green Corona Indices: E. Limb 7 days earlier: NE- no data SE no data W. Limb 7 days later: NW- no data SW- no data

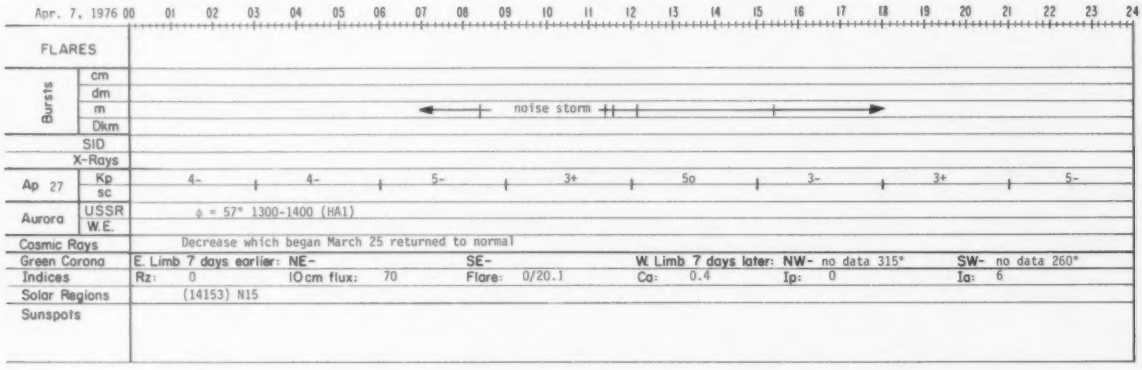
Rz: 13 10cm flux: 75 Flare: 0/24.0 Ca: 4.3 Ip: 0 Ia: 6

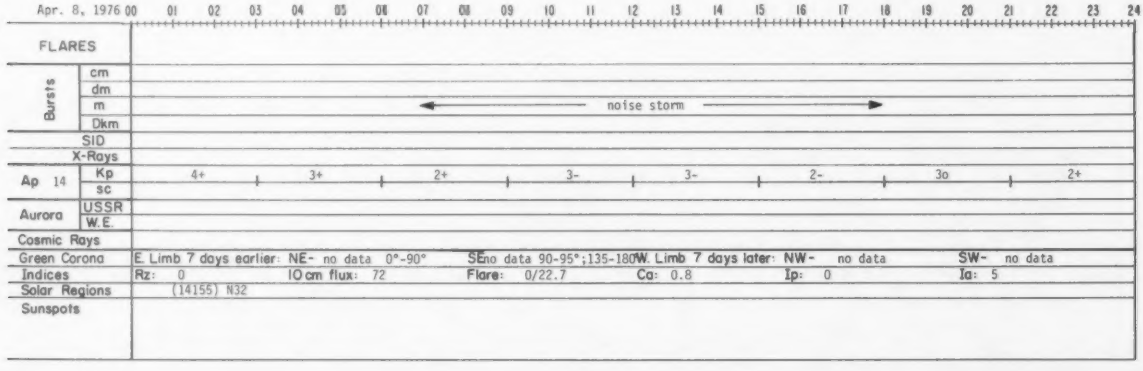
Solar Regions: (14154) N05

Sunspots


Apr. 5, 1976 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
Bursts
cm
dm
m
Dkm
noise storm
I
II IV
I II, IV
SID
X-Rays
Ap 27D
Kp
sc
4o 5- 4o 4o 4- 3o 5- 3+
Aurora
USSR
W.E.
φ = 54° 1600-1900 (HP1)
Cosmic Rays
Green Corona
E. Limb 7 days earlier: NE- SE- W. Limb 7 days later: NW- no data SW- no data
Indices
Rz: 12 10 cm flux: 73 Flare: 2/19.5 Ca: 2.3 Ip: 0 Ia: 7
Solar Regions
Sunspots


Apr. 6, 1976 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
Bursts
cm
dm
m
Dkm
SID
X-Rays
Ap 30D
Kp
sc
5- 5- 4+ 4+ 4- 3+ 4+ 4o
Aurora
USSR
W.E.
φ = 59° 1700-1900 (HA2)
Cosmic Rays
Green Corona
E. Limb 7 days earlier: NE- no data SE no data W. Limb 7 days later: NW- no data 270°-275° SW- no data 235°-270°
Indices
Rz: 9 10 cm flux: 71 Flare: 1/22.4 Ca: 0.4 Ip: 0 Ia: 7
Solar Regions
Sunspots


Apr. 7, 1976 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
Bursts
cm
dm
m
Dkm
noise storm
SID
X-Rays
Ap 27
Kp
sc
4- 4- 5- 3+ 5o 3- 3+ 5-
Aurora
USSR
W.E.
φ = 57° 1300-1400 (HA1)
Cosmic Rays
Decrease which began March 25 returned to normal
Green Corona
E. Limb 7 days earlier: NE- SE- W. Limb 7 days later: NW- no data 315° SW- no data 260°
Indices
Rz: 0 10 cm flux: 70 Flare: 0/20.1 Ca: 0.4 Ip: 0 Ia: 6
Solar Regions
(14153) N15
Sunspots


Apr. 8, 1976 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
Bursts
cm
dm
m
Dkm
noise storm
SID
X-Rays
Ap 14
Kp
sc
4+ 3+ 2+ 3- 3- 2- 3o 2+
Aurora
USSR
W.E.
Cosmic Rays
Green Corona
E. Limb 7 days earlier: NE- no data 0°-90° SE no data 90-95°;135-180° W. Limb 7 days later: NW- no data SW- no data
Indices
Rz: 0 10 cm flux: 72 Flare: 0/22.7 Ca: 0.8 Ip: 0 Ia: 5
Solar Regions
(14155) N32
Sunspots

Apr. 9, 1976 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

FLARES		— 1f/61
Bursts	cm	
	dm	
	m	noise storm
	Dkm	
	SID	
	X-Rays	
Ap 16	Kp	4+ 4- 2- 2- 3+ 3+ 2+ 3o
	sc	
Aurora	USSR	
	W.E.	
Cosmic Rays		
Green Corona		E. Limb 7 days earlier: NE- SE- W. Limb 7 days later: NW- no data SW- no data
Indices		Rz: 8 10cm flux: 74 Flare: 3/23.5 Ca: 2.4 Ip: 0 Ia: 5
Solar Regions		14152 S33 (2)
Sunspots		

Apr. 10, 1976 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

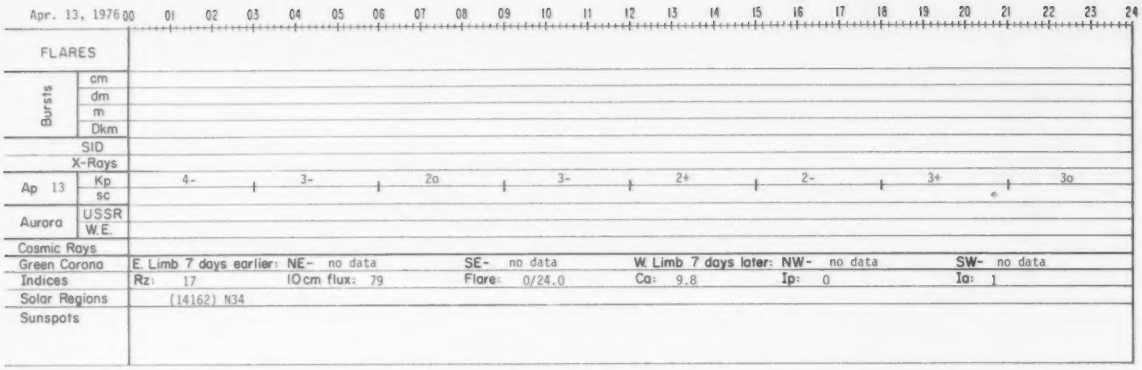
FLARES		
Bursts	cm	
	dm	
	m	
	Dkm	
	SID	
	X-Rays	
Ap 12	Kp	3+ 4o 3- 2+ 3o 2o 1+ 1+
	sc	
Aurora	USSR	
	W.E.	
Cosmic Rays		
Green Corona		E. Limb 7 days earlier: NE- no data 25° SE W. Limb 7 days later: NW- no data SW- no data
Indices		Rz: 10 10cm flux: 75 Flare: 0/16.5 Ca: 4.5 Ip: 0 Ia: 4
Solar Regions		(14158) N11 14156 S39 (2)
Sunspots		

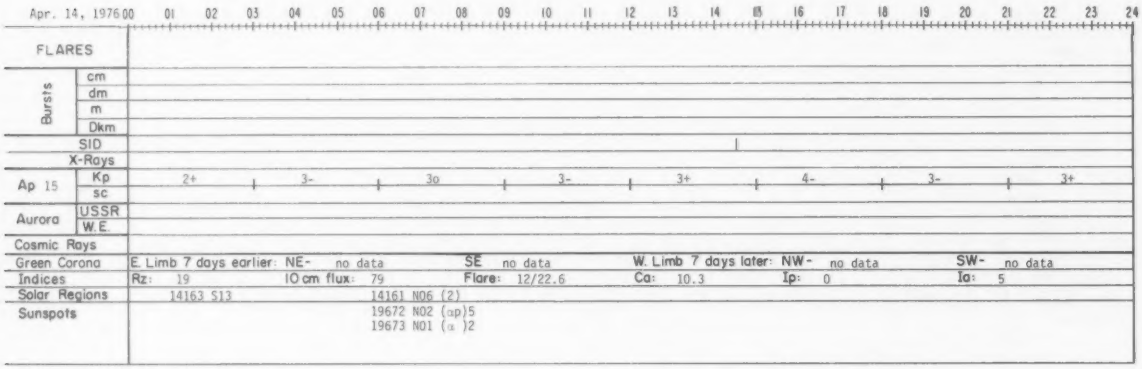
Apr. 11, 1976 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

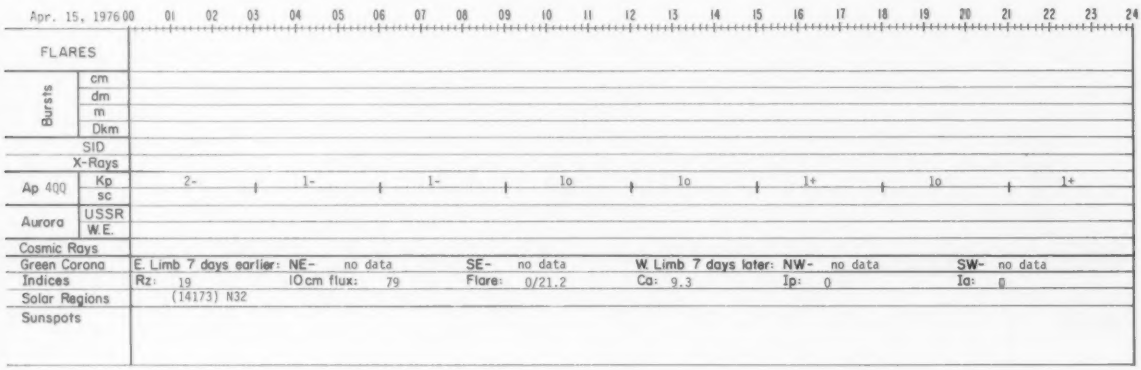
FLARES		
Bursts	cm	
	dm	
	m	
	Dkm	
	SID	
	X-Rays	
Ap 12	Kp	3- 2o 2- 3o 3o 2o 3- 4-
	sc	
Aurora	USSR	
	W.E.	
Cosmic Rays		
Green Corona		E. Limb 7 days earlier: NE- no data 10°, 40° SE- W. Limb 7 days later: NW- no data SW- no data
Indices		Rz: 15 10cm flux: 77 Flare: 2/22.7 Ca: 6.7 Ip: 0 Ia: 2
Solar Regions		
Sunspots		

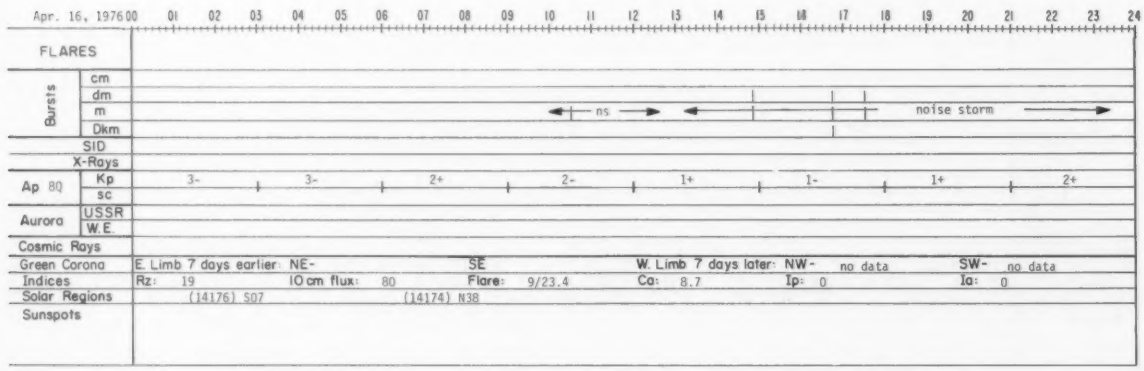
Apr. 12, 1976 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

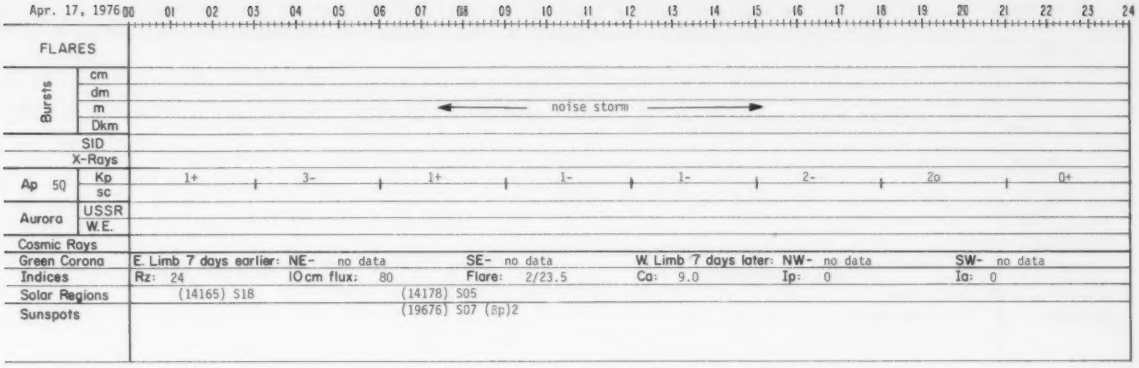
FLARES		
Bursts	cm	
	dm	
	m	
	Dkm	
	SID	
	X-Rays	
Ap 9	Kp	2o 3- 4- 3- 1+ 1o 1+ 2o
	sc	
Aurora	USSR	
	W.E.	
Cosmic Rays		
Green Corona		E. Limb 7 days earlier: NE- no data SE no data W. Limb 7 days later: NW- no data SW- no data
Indices		Rz: 17 10cm flux: 78 Flare: 0/23.3 Ca: 9.6 Ip: 0 Ia: 3
Solar Regions		(14159) S26 14164 S38 14166 S07 (14160) S04
Sunspots		

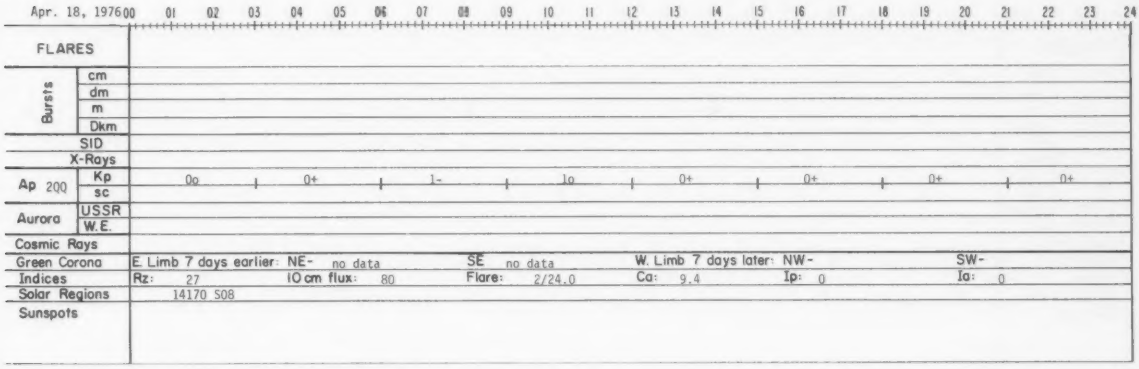

Apr. 13, 1976
00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
Bursts
cm
dm
m
Dkm
SID
X-Rays
Ap 13
Kp
4- 3- 2o 3- 2+ 2- 3+ 3o
sc
Aurora
USSR
W.E.
Cosmic Rays
Green Corona
E. Limb 7 days earlier: NE- no data SE- no data W. Limb 7 days later: NW- no data SW- no data
Indices
Rz: 17 10.cm flux: 79 Flare: 0/24.0 Ca: 9.8 Ip: 0 Ia: 1
Solar Regions
(14162) N34
Sunspots

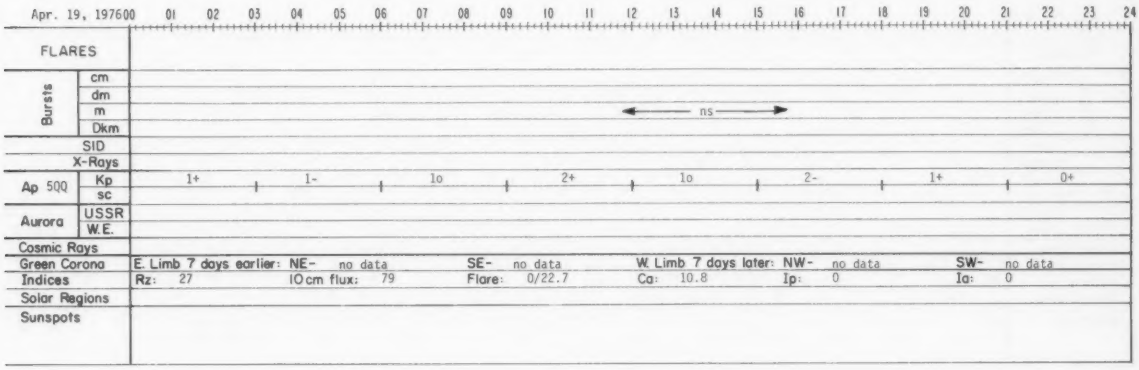

Apr. 14, 1976
00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
Bursts
cm
dm
m
Dkm
SID
X-Rays
Ap 15
Kp
2+ 3- 3o 3- 3+ 4- 3- 3+
sc
Aurora
USSR
W.E.
Cosmic Rays
Green Corona
E. Limb 7 days earlier: NE- no data SE no data W. Limb 7 days later: NW- no data SW- no data
Indices
Rz: 19 10.cm flux: 79 Flare: 12/22.6 Ca: 10.3 Ip: 0 Ia: 5
Solar Regions
14163 S13 14161 N06 (2)
Sunspots
19672 N02 (αp)5
19673 N01 (α)2

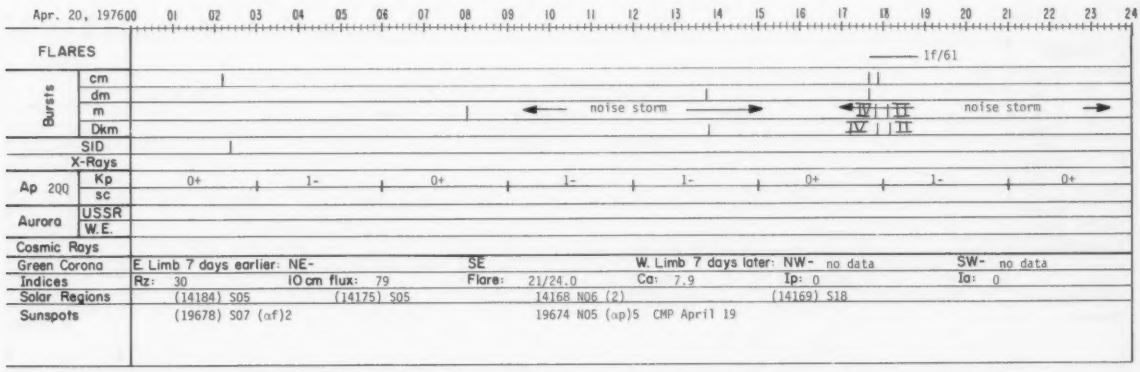

Apr. 15, 1976
00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
Bursts
cm
dm
m
Dkm
SID
X-Rays
Ap 400
Kp
2- 1- 1- 1o 1o 1+ 1o 1+
sc
Aurora
USSR
W.E.
Cosmic Rays
Green Corona
E. Limb 7 days earlier: NE- no data SE- no data W. Limb 7 days later: NW- no data SW- no data
Indices
Rz: 19 10.cm flux: 79 Flare: 0/21.2 Ca: 9.3 Ip: 0 Ia: 0
Solar Regions
(14173) N32
Sunspots


Apr. 16, 1976
00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
Bursts
cm
dm
m
Dkm
ns
noise storm
SID
X-Rays
Ap 80
Kp
3- 3- 2+ 2- 1+ 1- 1+ 2+
sc
Aurora
USSR
W.E.
Cosmic Rays
Green Corona
E. Limb 7 days earlier: NE- SE W. Limb 7 days later: NW- no data SW- no data
Indices
Rz: 19 10.cm flux: 80 Flare: 9/23.4 Ca: 8.7 Ip: 0 Ia: 0
Solar Regions
(14176) S07 (14174) N38
Sunspots


Apr. 17, 1976
00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
Bursts
cm
dm
m
Dkm
noise storm
SID
X-Rays
Ap 50
Kp
1+ 3- 1+ 1- 1- 2- 2o 0+
sc
Aurora
USSR
W.E.
Cosmic Rays
Green Corona
E. Limb 7 days earlier: NE- no data SE- no data W. Limb 7 days later: NW- no data SW- no data
Indices
Rz: 24 10cm flux: 80 Flare: 2/23.5 Ca: 9.0 Ip: 0 Ia: 0
Solar Regions
(14165) S18 (14178) S05
Sunspots
(19676) S07 (βp)2


Apr. 18, 1976
00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
Bursts
cm
dm
m
Dkm
SID
X-Rays
Ap 200
Kp
0o 0+ 1- 1o 0+ 0+ 0+ 0+
sc
Aurora
USSR
W.E.
Cosmic Rays
Green Corona
E. Limb 7 days earlier: NE- no data SE no data W. Limb 7 days later: NW- SW-
Indices
Rz: 27 10cm flux: 80 Flare: 2/24.0 Ca: 9.4 Ip: 0 Ia: 0
Solar Regions
14170 S08
Sunspots


Apr. 19, 1976
00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
Bursts
cm
dm
m
Dkm
ns
SID
X-Rays
Ap 500
Kp
1+ 1- 1o 2+ 1o 2- 1+ 0+
sc
Aurora
USSR
W.E.
Cosmic Rays
Green Corona
E. Limb 7 days earlier: NE- no data SE- no data W. Limb 7 days later: NW- no data SW- no data
Indices
Rz: 27 10cm flux: 79 Flare: 0/22.7 Ca: 10.8 Ip: 0 Ia: 0
Solar Regions
Sunspots


Apr. 20, 1976
00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
1f/61
Bursts
cm
dm
m
Dkm
noise storm
noise storm
SID
X-Rays
Ap 200
Kp
0+ 1- 0+ 1- 1- 0+ 1- 0+
sc
Aurora
USSR
W.E.
Cosmic Rays
Green Corona
E. Limb 7 days earlier: NE- SE W. Limb 7 days later: NW- no data SW- no data
Indices
Rz: 30 10cm flux: 79 Flare: 21/24.0 Ca: 7.9 Ip: 0 Ia: 0
Solar Regions
(14184) S05 (14175) S05 14168 N06 (2) (14169) S18
Sunspots
(19678) S07 (αf)2 19674 N05 (αp)5 CMP April 19

Apr. 21, 197600 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

FLARES

Bursts: cm, dm, m, Dkm — noise storm

SID

X-Rays

Ap 500 — Kp: 0+ | 0+ | 1o | 2+ | 2o | 1+ | 1o | 2-

sc

Aurora: USSR, W.E.

Cosmic Rays

Green Corona — E. Limb 7 days earlier: NE- SE- W. Limb 7 days later: NW- no data SW- no data

Indices — Rz: 39 10cm flux: 77 Flare: 1/20.7 Ca: 7.0 Ip: 0 Ia: 1

Solar Regions: 14171 S10

Sunspots: 19675 S10 (nf)1

Apr. 22, 197600 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

FLARES

Bursts: cm, dm, m, Dkm — noise storm

SID

X-Rays

Ap 19 — Kp: 3- | 4- | 5- | 4- | 3- | 2+ | 3o | 3+

sc

Aurora: USSR, W.E.

Cosmic Rays

Green Corona — E. Limb 7 days earlier: NE- no data SE no data W. Limb 7 days later: NW- no data SW- no data

Indices — Rz: 20 10cm flux: 75 Flare: 11/24.0 Ca: 6.9 Ip: 0 Ia: 3

Solar Regions: (14177) N27

Sunspots

Apr. 23, 197600 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

FLARES

Bursts: cm, dm, m, Dkm — noise storm

SID

X-Rays

Ap 80 — Kp: 3+ | 3- | 1+ | 2- | 2- | 1+ | 1o | 1+

sc

Aurora: USSR, W.E.

Cosmic Rays

Green Corona — E. Limb 7 days earlier: NE- no data SE- no data W. Limb 7 days later: NW- SW-

Indices — Rz: 17 10cm flux: 75 Flare: 0/23.2 Ca: 8.7 Ip: 0 Ia: 3

Solar Regions: 14182 S01 (14180) S45

Sunspots

Apr. 24, 197600 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

FLARES

Bursts: cm, dm, m, Dkm — noise storm

SID

X-Rays

Ap 16 — Kp: 2- | 4- | 3+ | 3o | 3o | 2+ | 4o | 3o

sc

Aurora: USSR, W.E.

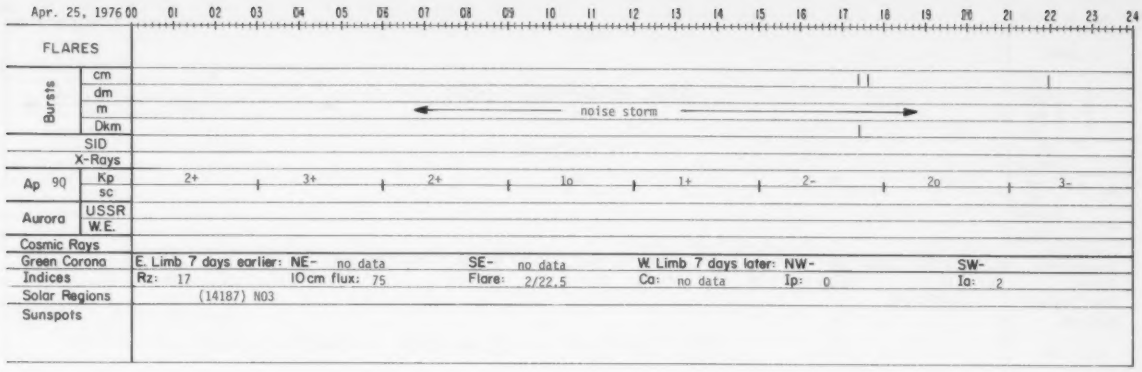
Cosmic Rays

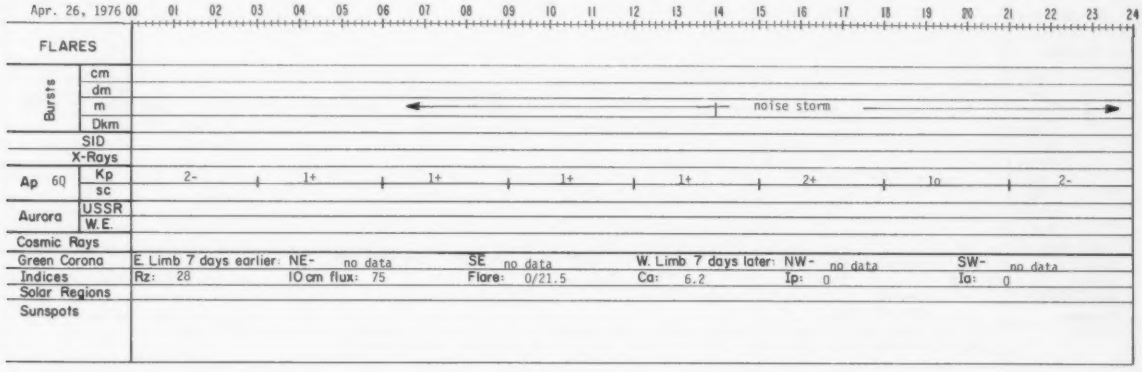
Green Corona — E. Limb 7 days earlier: NE- no data SE no data W. Limb 7 days later: NW- no data SW- no data

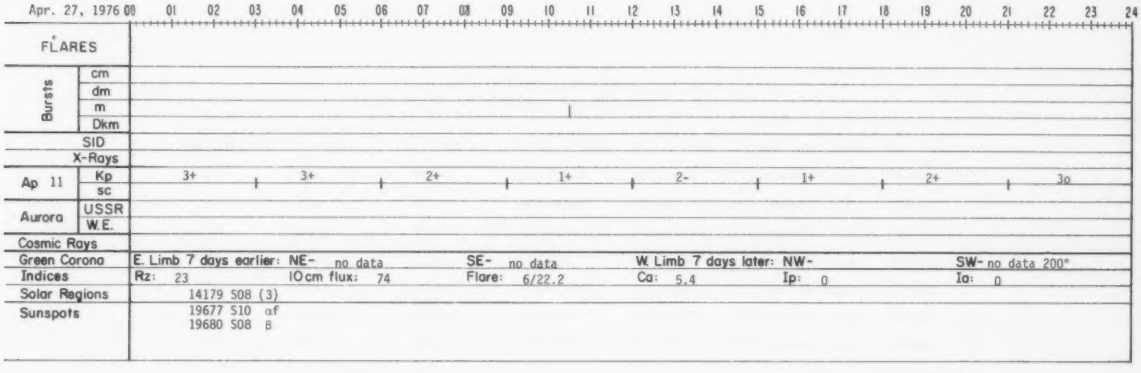
Indices — Rz: 16 10cm flux: 76 Flare: 0/20.7 Ca: 9.0 Ip: 0 Ia: 5

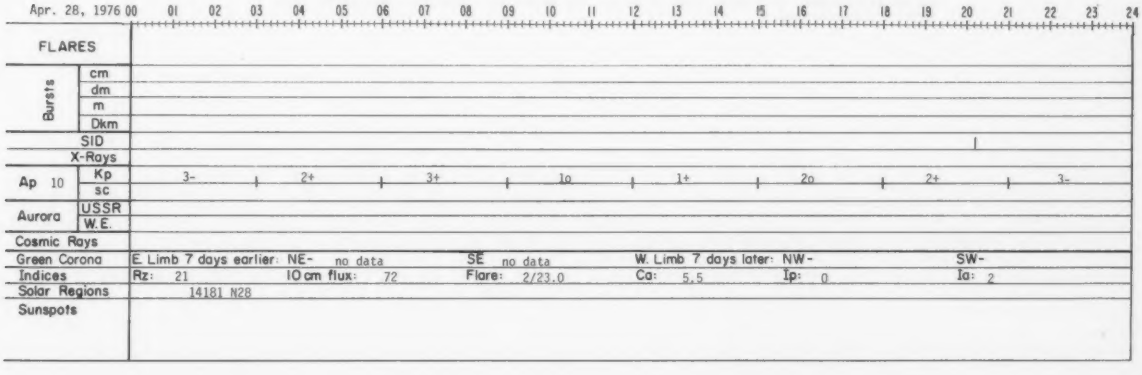
Solar Regions: (14186) S14 (14188) S03

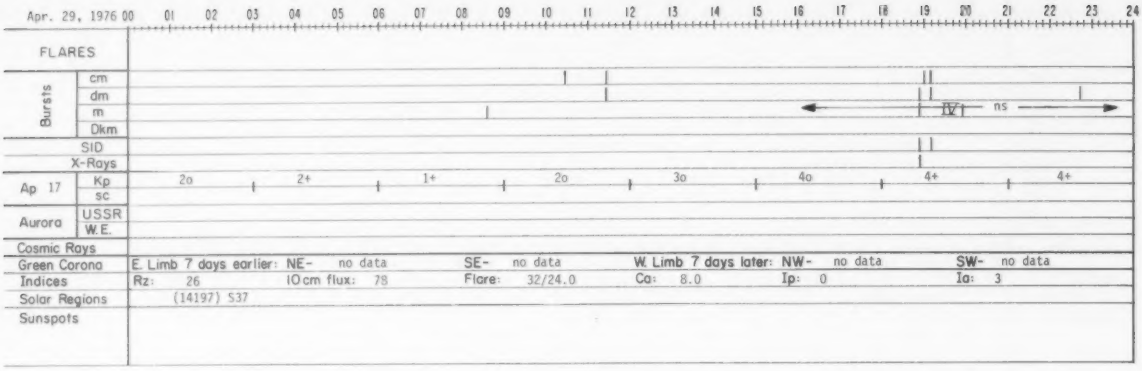
Sunspots

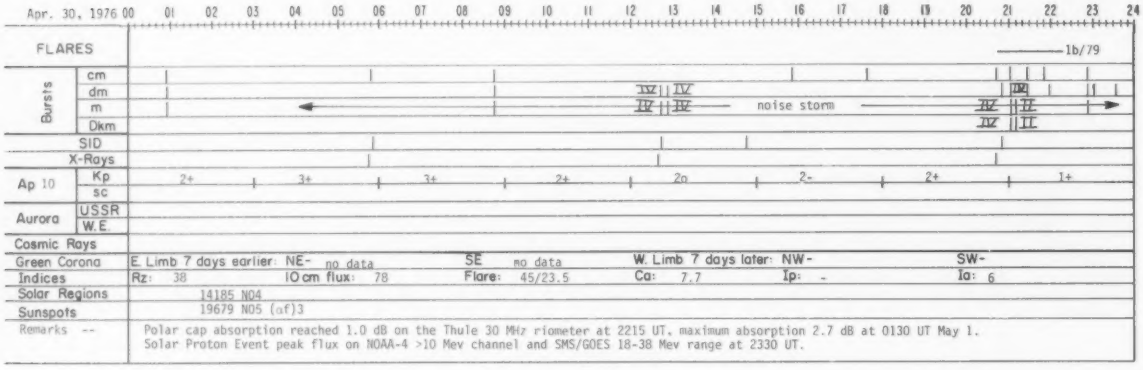

Apr. 25, 1976 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
Bursts
cm
dm
m
Dkm
noise storm
SID
X-Rays
Ap 9Q
Kp
2+ 3+ 2+ 1o 1+ 2- 2o 3-
sc
Aurora
USSR
W.E.
Cosmic Rays
Green Corona
E. Limb 7 days earlier: NE- no data SE- no data W. Limb 7 days later: NW- SW-
Indices
Rz: 17 10cm flux: 75 Flare: 2/22.5 Ca: no data Ip: 0 Ia: 2
Solar Regions
(14187) N03
Sunspots


Apr. 26, 1976 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
Bursts
cm
dm
m
Dkm
noise storm
SID
X-Rays
Ap 6Q
Kp
2- 1+ 1+ 1+ 1+ 2+ 1o 2-
sc
Aurora
USSR
W.E.
Cosmic Rays
Green Corona
E. Limb 7 days earlier: NE- no data SE no data W. Limb 7 days later: NW- no data SW- no data
Indices
Rz: 28 10cm flux: 75 Flare: 0/21.5 Ca: 6.2 Ip: 0 Ia: 0
Solar Regions
Sunspots


Apr. 27, 1976 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
Bursts
cm
dm
m
Dkm
SID
X-Rays
Ap 11
Kp
3+ 3+ 2+ 1+ 2- 1+ 2+ 3o
sc
Aurora
USSR
W.E.
Cosmic Rays
Green Corona
E. Limb 7 days earlier: NE- no data SE- no data W. Limb 7 days later: NW- SW- no data 200°
Indices
Rz: 23 10cm flux: 74 Flare: 6/22.2 Ca: 5.4 Ip: 0 Ia: 0
Solar Regions
14179 S08 (3)
Sunspots
19677 S10 αf
19680 S08 β


Apr. 28, 1976 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
Bursts
cm
dm
m
Dkm
SID
X-Rays
Ap 10
Kp
3- 2+ 3+ 1o 1+ 2o 2+ 3-
sc
Aurora
USSR
W.E.
Cosmic Rays
Green Corona
E. Limb 7 days earlier: NE- no data SE no data W. Limb 7 days later: NW- SW-
Indices
Rz: 21 10cm flux: 72 Flare: 2/23.0 Ca: 5.5 Ip: 0 Ia: 2
Solar Regions
14181 N28
Sunspots




Apr. 30, 1976 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
1b/79
Bursts
cm
dm
m
Dkm
noise storm
SID
X-Rays
Ap 10
Kp
2+ 3+ 3+ 2+ 2o 2- 2+ 1+
sc
Aurora
USSR
W.E.
Cosmic Rays
Green Corona
E. Limb 7 days earlier: NE- no data SE no data W. Limb 7 days later: NW- SW-
Indices
Rz: 38 10cm flux: 78 Flare: 45/23.5 Ca: 7.7 Ip: - Ia: 6
Solar Regions
14185 N04
Sunspots
19679 N05 (af)3
Remarks --
Polar cap absorption reached 1.0 dB on the Thule 30 MHz riometer at 2215 UT, maximum absorption 2.7 dB at 0130 UT May 1.
Solar Proton Event peak flux on NOAA-4 >10 Mev channel and SMS/GOES 18-38 Mev range at 2330 UT.

REGIONAL FLARE INDEX
INCLUDES ALL FLARES

MC MATH PLAGE NO.	LAT	CMP DATE	DATE FIRST FLARE	DATE LAST FLARE	FLARE-INDEX SUM	FLARE-INDEX MEAN	TOTAL NO. OF FLARES
14160	S 4	76/04/12.7	76/04/06	76/04/06	.89	.89	1
14163	S13	76/04/14.1	76/04/14	76/04/14	.21	.21	1
14161	N 5	76/04/14.9	76/04/09	76/04/20	31.25	2.60	12
14168	N 6	76/04/20.4	76/04/16	76/04/21	19.22	3.20	5
14171	S10	76/04/21.1	76/04/17	76/04/22	9.08	1.51	3
14179	S 8	76/04/27.1	76/04/22	76/05/01	85.54	8.55	22
14185	N 4	76/04/30.8	76/04/25	76/05/05	9.33	.85	6

Note:
Because of differences in method of calculation, the dates of Central Meridian Passage for the McMath Plage Regions vary somewhat from those given elsewhere. Any region not listed here produced no flares during its disk passage.

MISCELLANEOUS DATA

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Solar Wind
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SOLAR RADIO EMISSION
SPECTRAL OBSERVATIONS

AUGUST 1976

AUG 1976	TIMES OF OBSERVATION START UT	TIMES OF OBSERVATION END UT	STATION	EVENTS: DECIMETRIC BAND START UT	DECIMETRIC BAND END UT	DECIMETRIC BAND INT	METRIC BAND START UT	METRIC BAND END UT	METRIC BAND INT	DEKAMETRIC BAND START UT	DEKAMETRIC BAND END UT	DEKAMETRIC BAND INT	SPECTRAL TYPE
01			CULG				0000	0738	1				IIIS
	0000	0738	CULG	0000	0738	1	0000	0738	2				IS,DC
			CULG				0014.5	0016	2	0015	0015.5	1	IIIG
			CULG	0025	0228	1	0223	0231.5	2	0225	0228	1	IIIGG
			CULG	0319	0320	1							FAST DRIFT
			CULG				0448	0505	2				IIIGG
			CULG	0647	0647.5	2	0647	0648	3				IIIB
	2038	2400	CULG	2038	2400	1	2038	2400	2				IS,DC
			CULG	2038	2400	1							IIIN
			CULG				2038	2400	1				IIIS
			CULG	2310	2311	1	2309.5	2311	2				IIIG
02	0000	0738	CULG	0000	0738	1	0000	0155	1				IS,DC
			CULG	0000	0738	1							IIIN
			CULG				0000	0738	1				IIIS
			CULG	0036	0037	1	0036	0037	2				IIIG,U
			CULG	0151.5	0155.5	2	0151.5	0155.5	2				IIIGG,V
			CULG				0155	0320	2				IS,DC
			CULG				0320	0738	1				IS,DC
			CULG	0702	0711	2	0702	0711	2				IIIGG,V
			CULG	0710	0728	1	0710	0728	1				CONT
			CULG				2038	2400	1				IIIS
	2038	2400	CULG	2038	2400	1	2038	2400	1				IS,DC,C
			CULG	2038	2400	1							IIIN
			CULG	2228	2236	1	2228	2236	2	2228	2233	2	IIIGG,V
			CULG	2236	2315	1	2236	2330	2				CONT
03	0000	0738	CULG	0000	0738	1	0000	0738	1				IS,DC
			CULG	0000	0738	1							IIIN
			CULG				0000	0738	1				IIIS
			CULG	0006	0015	1	0000	0020	2				IIIGG
			CULG	0113.5	0116	1	0113.5	0116	1				IIIG
			CULG	0451	0503	1	0448	0503	2	0455	0500	1	IIIGG
			CULG				0500	0550	1				IS,C
			CULG	0638	0639.5	1	0638	0639.5	1				IIIGG
			CULG	0706	0708	1	0706	0708	2				IIIGG
			CULG	2038	2400	1							IIIN
			CULG				2038	2400	1				IIIS
	2038	2400	CULG	2038	2400	1	2038	2400	2				IS,DC
			CULG				2129	2130	1				IIIG
			CULG	2322	2342.5	1	2322	2342.5	2	2325	2334	1	IIIGG
04	0000	0725	CULG	0000	0725	1	0000	0725	2				IS,DC
			CULG	0000	0725	1							IIIN
			CULG				0000	0725	1				IIIS
			CULG	0524	0525	1	0524	0525	2	0524.5	0525	1	IIIG
	2038	2400	CULG	2038	2400	1	2038	2400	2				IS,DC,C
			CULG	2038	2400	1				2038	2400	1	IIIN
			CULG				2038	2400	2				IIIS
			CULG				2249	2250.5	2	2249.5	2250	2	IIIG,V
05	0000	0738	CULG	0000	0738	1	0000	0738	2				IS,DC,C
			CULG	0000	0738	1				0000	0738	1	IIIN
			CULG				0000	0738	2				IIIS
			CULG	0021	0022.5	1	0021	0022.5					IIIGG
	2039	2400	CULG	2039	2400	1	2039	2400	2				IS,DC,C
			CULG	2039	2400	1				2039	2400	1	IIIN
			CULG				2039	2400	2				IIIS
			CULG	2321	2322	1	2321	2322	2	2321	2322	2	IIIG,V
			CULG				2331.5	2332.5	2				IIIG,U
			CULG	2351	2357	1	2351	2357	2	2351.5	2357	2	IIIGG,V
06	0000	0738	CULG	0000	0738	1	0000	0738	2				IS,DC,C
			CULG	0000	0738	1				0000	0738	1	IIIN
			CULG				0000	0425	2				IIIGG,N
			CULG				0000	0738	1				IIIS
			CULG	0028	0028.5	1	0028	0029	2	0028	0029.5	2	IIIG,V
			CULG	0425.5	0439	2	0425.5	0440	3	0425.5	0440	2	IIIGG
	2038	2400	CULG	2038	2400	1	2038	2400	1				IS,C
			CULG	2038	2400	1				2038	2400	1	IIN

SOLAR RADIO EMISSION
SPECTRAL OBSERVATIONS

AUGUST 1976

AUG 1976	TIMES OF OBSERVATION		STATION	EVENTS									SPECTRAL TYPE
				DECIMETRIC BAND			METRIC BAND			DEKAMETRIC BAND			
	START UT	END UT		START UT	END UT	INT	START UT	END UT	INT	START UT	END UT	INT	
06			CULG				2038	2400					IIIS
			CULG	2332	2333	1	2332	2333	2	2332.5	2333	1	IIIG
07	0000	0738	CULG	0000	0738	1	0000	0430	1				IS,DC,C
			CULG	0000	0435	1				0000	0738		IIIN
			CULG				0000	0430	1				IIIS
			CULG	0158.5	0159.5	2	0158.5	0159.5	2				IIIG
			CULG	0159	0200	2							FAST DRIFT
			CULG				0206	0221	1				II
			CULG	0207	0209.5	1	0206	0210	2	0206	0210	2	IIIGG
			CULG	0229.5	0230	1	0229.5	0231	2				IIIG
			CULG				0241	0243	2	0241	0242	1	IIIG,V
			CULG				0353	0427	2				IIIG,N
			CULG				0430	0540	2				IIIS
			CULG				0430	0738	2				IS,DC,C
			CULG				0433	0434.5	2	0433	0435	2	IIIG,V
			CULG				0540	0615	3				IIIS
			CULG				0615	0738	2				IIIS
			CULG	2038	2400	1	2038	2400	2	2038	2400	1	IIIS
	2038	2400	CULG	2038	2400	1	2038	2400	2				IS,DC,C
			CULG	2135	2142	2	2135	2144	3	2135	2144	3	IIIGG,V
			CULG	2151.5	2152.5	1	2151.5	2152.5	2	2151.5	2152.5	2	IIIG
08			CULG				0000	0738	2	0000	0738	2	IIIS
	0000	0738	CULG	0000	0738	1	0000	0738	2				IS,DC,C
			CULG	0208	0217	2	0208	0217	3	0208	0217	3	IIIGG
	2038	2400	CULG	2038	2400	1	2038	2400	2				IS,DC,C
			CULG				2038	2400	2	2038	2400	2	IIIS
09	0000	0738	CULG	0000	0738	1	0000	0738	2				IS,DC,C
			CULG				0000	0738	2	0000	0738	2	IIIS,N
			CULG	0722	0722.5	2	0722	0723	2	0722	0722.5	2	IIIG
			CULG				2038	2055	1				IIIS
	2038	2055	CULG	2038	2055	1	2038	2055	1				IS,DC,C
			CULG				2139	2400	2	2139	2400	2	IIIS
	2139	2400	CULG	2139	2400		2139	2400	2				IS,DC,C
10			CULG				0000	0738	1	0000	0528	1	IIIS
	0000	0738	CULG	0000	0738	1	0000	0738	1				IS,DC,C
			CULG				0359	0359.5	2	0359	0359.5	1	IIIG
	2037	2400	CULG	2037	2400	1	2037	2400	1				IS,C
			CULG							2037	2400	1	IIIN
			CULG				2037	2400	1				IIIS
11			CULG				0000	0738	1				IIIS
	0000	0738	CULG	0000	0738	1	0000	0738	1				IS,DC,C
			CULG				2037	2400	1				IIIS
	2037	2400	CULG	2037	2400	1	2037	2400	1				IS,DC,C
12			CULG				0000	0737	1				IIIN
	0000	0737	CULG	0000	0737	1	0000	0737	1				IS,DC
			CULG				2037	2400	1				IIIN
	2037	2400	CULG	2037	2400	1	2037	2400	1				IS,DC
			CULG				2348.5	2349.5	2				IIIG,U
13	0000	0737	CULG	0000	0737		0000	0737					IS,W
			CULG				0000	0737					IIIN,W
			CULG				0051	0052	1				IIIG,U
			CULG				0338.5	0340	1				IIIG,V,U
	2037	2400	CULG				2037	2400					IIIN,W
			CULG				2338.5						IIIB,U
14	0000	0737	CULG				0000	0737					IIIN,W
			CULG				0000	0737					IS,W
			CULG	0200	0200.5		0200	0200.5					IIIG,W
			CULG				2040	2210					IIIN,W
	2040	2400	CULG				2040	2400					IN,W
15	0000	0730	CULG				0000	0101					IN,W
			CULG				0039	0041					IIIG,W

SOLAR RADIO EMISSION
SPECTRAL OBSERVATIONS

AUGUST 1976

AUG 1976	TIMES OF OBSERVATION		STATION	EVENTS									SPECTRAL TYPE
				DECIMETRIC BAND			METRIC BAND			DEKAMETRIC BAND			
	START UT	END UT		START UT	END UT	INT	START UT	END UT	INT	START UT	END UT	INT	
15			CULG				0202						IIIB,W
			CULG				0326	0328					IIIG,W
			CULG				0431	0648					IIIN,W
			CULG	0515	0535								IN,W
	2200	2400	CULG				2227	2310					IIIN,W
16	0000	0730	CULG				0143	0155					IIIN,W
	2220	2400	CULG				2220	2400					IN,W
			CULG				2301						IIIB,W
			CULG				2323	2324					IIIG,W
17	0000	0730	CULG				0034						IIIB,W
			CULG				0115						IN,W
			CULG				0206.5	0207.5					IIIG,W
			CULG				0330	0430					IIIN,W
			CULG				0352	0359	1				IIIG,U
			CULG				0435	0436	1				IIIG
			CULG				0438	0439	1				IIIG
			CULG	0441	0443	1	0441	0444	2				IIIG,V,U
18	0005	0736	CULG										
	2036	2400	CULG				2036	2200					IS,W
			CULG	2056	2057	1	2056	2058.5	1				IIIG
			CULG				2141	2142.5	1				IIIG
			CULG				2155						IIIB,W
			CULG				2329		1	2329.5		1	IIIB
19	0000	0735	CULG				0024	0025	1				IIIG
			CULG				0158	0159					IIIG,W
			CULG				0559	0600					IIIG,W
	2035	2400	CULG				2105.5						IIIB,W
			CULG				2109	2110	1				IIIG,U
			CULG				2115.5		1				IIIB,U
20	0000	0735	CULG				0018	0019					IIIG,W
	2035	2400	CULG	2128	2129		2128	2129					IIIG,W
21	0000	0735	CULG										
	2035	2400	CULG										
22	0000	0735	CULG										
	2035	2400	CULG										
23	0000	0736	CULG				0003						IIIB,W
			CULG				0707.5						IIIB,U
	2036	2400	CULG										
24	0000	0736	CULG										
	2036	2400	CULG										
25	0000	0734	CULG										
	2034	2400	CULG										
26	0000	0734	CULG										
	2034	2400	CULG										
27	0000	0734	CULG										
	2034	2400	CULG										
28	0000	0734	CULG				0204	0205	2	0204	0205	1	IIIB
	2034	2400	CULG										
29	0000	0734	CULG										
	2034	2400	CULG				2048	2049.5	1				IIIG
30	0000	0733	CULG				0117.5						IIIB,W
			CULG	0342	0600								IS,W
	2033	2400	CULG				2121		1				IIIB
			CULG				2154		1				IIIB
			CULG				2202						IIIB,W

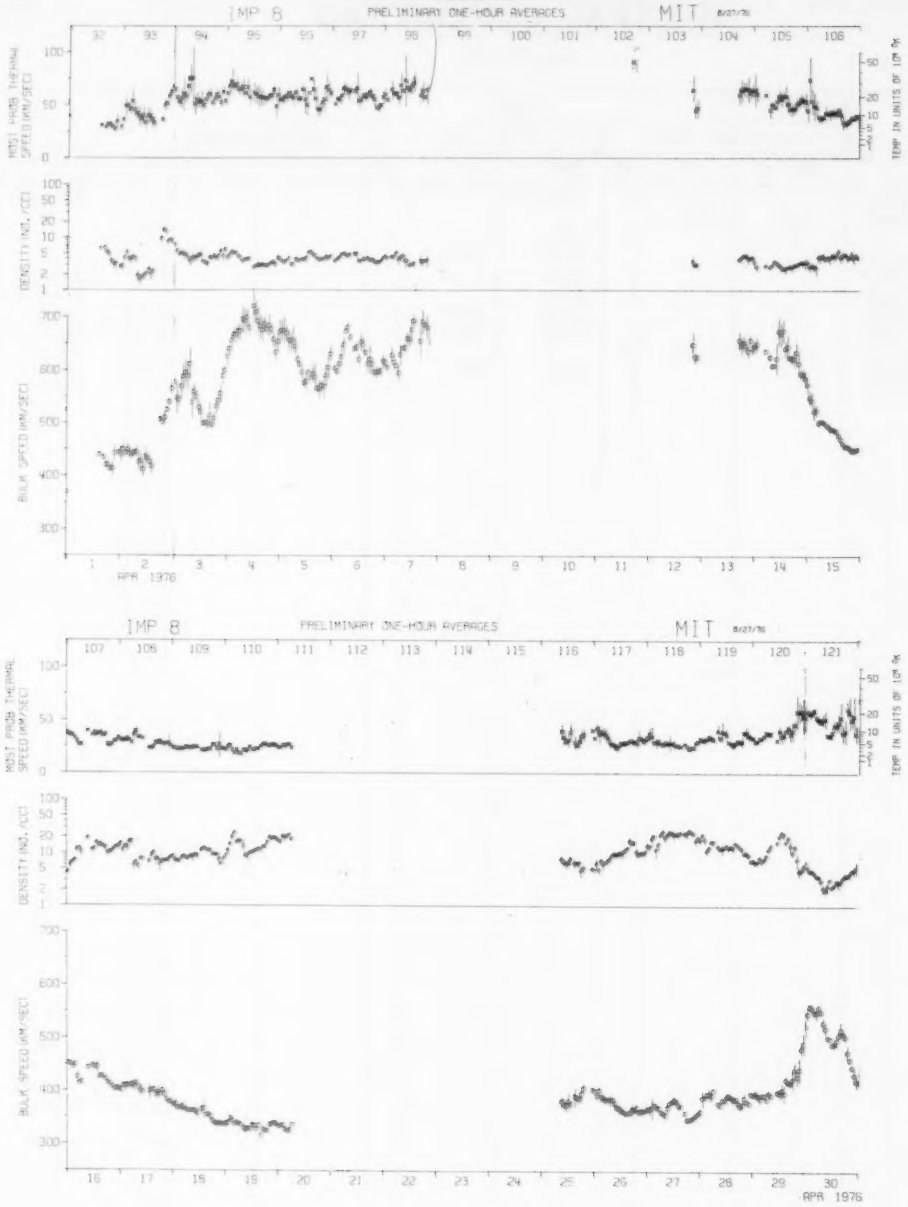
SOLAR RADIO EMISSION
SPECTRAL OBSERVATIONS

AUGUST 1976

AUG 1976	TIMES OF OBSERVATION		STATION	EVENTS									SPECTRAL TYPE
				DECIMETRIC BAND			METRIC BAND			DEKAMETRIC BAND			
	START UT	END UT		START UT	END UT	INT	START UT	END UT	INT	START UT	END UT	INT	
30			CULG				2225.5						IIIB,W
			CULG	2232	2233								IS,W
31	0000	0732	CULG				0000	0732					IS,W
			CULG				0000	0732					IIIN,W
			CULG				0424						IIIB,W
			CULG				2032	2400	1				IIIN
	2032	2400	CULG				2032	2400	1				IS
			CULG	2100	2400	1							IS
			CULG				2220	2300	1				IIIN
			CULG				2358		1				IIIB

IMP 7 AND 8 SOLAR WIND PLASMA

APRIL 1976



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UAG-56 "Iso-intensity Contours of Ground Magnetic H Perturbations for the December 16-18, 1971 Geomagnetic Storm", by Y. Kamide, Cooperative Institute for Research in Environmental Sciences, University of Colorado, Boulder, Colorado 80302 and Geophysical Institute, University of Alaska, Fairbanks, Alaska 99701 (currently Guest worker at Data Studies Division, NOAA/EDS/NGSDC, Boulder, Colorado 80302), April 1976, 37 pages, price $1.39.

UAG-57 "Manual on Ionospheric Absorption Measurements", edited by K. Rawer, Institut für Physikalische Weltraumforschung, Freiburg, G.F.R., June 1976, 202 pages, price $4.27.

UAG-58 "ATS6 Radio Beacon Electron Content Measurements at Boulder, July 1974 - May 1975", by R. B. Fritz, Space Environment Laboratory (currently with Wave Propagation Laboratory), NOAA, Boulder, Colorado 80301 USA, September 1976, 61 pages, price $1.04.

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